

**MILWAUKEE COUNTY AUTOMATED MAPPING  
AND LAND INFORMATION SYSTEM**

Fifty-Fifth Steering Committee Meeting

**AGENDA**

**DATE:** April 8, 2003  
**TIME:** 9:00 A.M.  
**PLACE:** Milwaukee County Courthouse  
901 N. Ninth Street  
**Room 203-P**  
Milwaukee, Wisconsin

**Note different meeting room**

- I. Roll Call
- II. Meeting Minutes  
  
Consideration of minutes of the 54<sup>th</sup> Steering Committee meeting held on January 28, 2003 (copy of minutes enclosed).
- III. Special Order of Business  
  
Report of the MCAMLIS Nominating Committee (copy of letter enclosed)
- IV. Old Business
  - A. Consideration of the fourth of four scheduled reports on the MCAMLIS Land and Utility Information System Internet Prototype Study (copy of report enclosed).
  - B. Report on proposed meeting between the Milwaukee County Register of Deeds and the City of Milwaukee Assessor to consider elimination of duplicative work between the County and the City staffs.
  - C. Report on Subcommittee appointed to consider transfer of project management from the Regional Planning Commission staff to the Milwaukee County Department of Public Works staff.
  - D. Request for publication of a MCAMLIS newsletter.
- V. Reports
  - A. Report by Commission staff on the status of conversion of MCAMLIS digital map file database to ESRI ArcInfo format (copy of status map enclosed).
  - B. Report by City of Milwaukee staff on the status of Milwaukee cadastral map transformation projects (copy of report and status maps enclosed).
  - C. Report by Milwaukee County Register of Deeds staff on MCAMLIS street address file and cadastral map maintenance operations (copies of status maps enclosed).

- D. Report by project staff on completion of the WLIP Annual Status Report (copy of status report enclosed)
  - E. Report by project staff on the status of Milwaukee County's WLIP 2002 Grant Award applications (copy of map enclosed).
  - F. License Agreements executed on behalf of the Utilities Subcommittee (copy of table of executed license agreements enclosed).
  - G. Status of MCAMLIS cash flow (copy of cash flow table enclosed).
- VI. New Business
- A. Report by project staff on the manner in which revised survey control information is incorporated into survey control records and MCAMLIS digital and hardcopy maps (copy of Memorandum enclosed).
- VII. Correspondence
- A. Request by Milwaukee County Register of Deeds for discussion of the \$1 locally retained document filing fee and potential ways the fee could be used.
- VIII. Date, time, and place of next meeting
- IX. Adjournment

Kurt W. Bauer  
Chairman

KWB/TDP/wb/mlh  
#81216 v1 - MCAMLIS AGENDA 55TH MTG 4/8/03

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## MINUTES OF THE 54<sup>th</sup> MEETING

### Milwaukee County Automated Mapping and Land Information System Steering Committee

DATE: January 28, 2003

TIME: 9:00 a.m.

PLACE: Milwaukee County Register of Deeds Office  
Milwaukee County Courthouse  
901 N. 9th Street, Room 103  
Milwaukee, WI

#### Members Present

Kurt W. Bauer, Chairman  
Gregory G. High  
(representing Thomas D. Kenney)  
John LaFave  
Thomas F. Lewandowski

David S. Misun

Nancy A. Olson  
John C. Place  
William C. Shaw

Milwaukee County Surveyor  
Director, Architectural and Engineering Services, Milwaukee  
County Department of Public Works  
Register of Deeds, Milwaukee County  
Fiscal and Management Analyst, Milwaukee County Department  
of Administration  
Facilities Information Supervisor, Milwaukee Metropolitan  
Sewerage District  
GIS Manager, City of Milwaukee  
Manager, Maps and Records, WE Energies  
Manager, Geographic Information Systems Mapping, WE Energies

#### Members Absent

John M. Bennett

Dextra Hadnot

City Engineer, City of Franklin, representing the  
Intergovernmental Coordination Council of Milwaukee County  
Director, External Affairs, SBC

#### Guests and Staff Present

Candis Ahrendt  
Kathleen A. Bach  
Wendy J. Bradshaw  
Gary E. Drent

Jeffrey T. Fortin  
Marcia G. Lindholm

Reinhard B. Meihsner  
Thomas D. Patterson  
Thomas J. Tym  
Kevin R. White

Interested Citizen  
GIS Technician, Register of Deeds Office, Milwaukee County  
SEWRPC Secretary  
Director, Support Services, Milwaukee County Department of  
Public Works  
Planning and Zoning Administrator, City of Glendale  
Central Drafting and Records Manager, Infrastructure Service  
Division, City of Milwaukee  
Consultant, Spatial Data Solutions, Inc.  
MCAMLIS Project Manager  
Head, Technology Services Department, Ruekert-Mielke, Inc.  
GIS Supervisor, Department of Public Works, Milwaukee County



## ROLL CALL

The fifty-fourth meeting of the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee was called to order by Chairman Bauer at 9:00 A.M. Roll call was taken by circulating an attendance signature sheet, and a quorum was declared present.

Mr. Bauer then introduced Mr. John LaFave as a new member of the Committee. He noted that Mr. LaFave was the new Milwaukee County Register of Deeds and County Land Information Officer. He noted that Mr. LaFave served for a period of 10 years in the State Assembly, representing the 23<sup>rd</sup> Assembly District. He welcomed Mr. LaFave to the Committee.

## MINUTES

### **Approval of Minutes of the 53rd Steering Committee Meeting Held on December 3, 2002**

Chairman Bauer noted that copies of the minutes of the fifty-third meeting of the Steering Committee held on December 3, 2002, had been distributed to all members of the Committee for review prior to the meeting, and asked that the Committee consider those minutes.

Chairman Bauer noted that, in accordance with the Committee's directive given at its meeting held on December 3, 2002, the staff had prepared a plaque expressing the Steering Committee's appreciation for the service on the Steering Committee of Mr. Ignatias Niemczyk, the plaque containing the inscription set forth in the minutes of the December 3, 2002, meeting. He noted that since Mr. Niemczyk could not be present to receive the plaque, the plaque had been mailed to him.

Ms. Olson referred to the 3<sup>rd</sup> paragraph on page 8 of the minutes concerning the proposed meeting between the Milwaukee County Register of Deeds and the City of Milwaukee Assessor to consider the desirability of addressing several areas of possible work duplication between the County and the City. Ms. Olson reported that she had not been able to arrange the proposed meeting in that an initial contact between Ms. Mary Reavy, the City Assessor, and Mr. Walter Barczak, the former County Register of Deeds, had been abortive, and in that timing did not permit arranging for a meeting between Mr. Niemczyk, as County Register of Deeds succeeding Mr. Barczak, and Ms. Reavy. Ms. Olson indicated that if there was still interest in this issue at the County level, she would be pleased to attempt to arrange a meeting between Mr. LaFave and Ms. Reavy. Mr. LaFave indicated that he would be pleased to meet with Ms. Reavy in the hope that some mutually agreeable constructive means could be found to reduce any duplication in the work of the County Register of Deeds office and the City of Milwaukee Assessor's office particularly as related to cadastral mapping.

It was the consensus of the Committee that Ms. Olson should attempt to arrange for the meeting concerned.

Chairman Bauer noted that a revised copy of the third scheduled report on the MCAMLIS Land and Utility Information System Internet Prototype Study was attached to the minutes to be considered. He noted that in accordance with past practice, the report format indicated changes made in response to the Committee's review of a preliminary draft of the report at the meeting held on December 3, 2002, using strike-outs and underlines. He noted that in acting to approve the minutes concerned, the Committee would be acting to approve the final version of the third report.

Mr. High noted that the text of the third report at the top of page 26 recommended use of the Microsoft Internet Explorer, version 5.0 or newer, as a part of the hardware and software requirements for a



MCAMLIS participant to access the MCAMLIS web application, but was silent on the ability of alternative web browsers to also access the web application. A brief discussion ensued upon the conclusion of which it was agreed that Mr. Tym would further investigate the web browser situation and if a more universal solution to the web access issue became apparent, the table at the top of page 26 would be revised by the addition to the recommendation of a footnote or additional text concerning the use of MicroStation Internet Explorer, or alternative browsers, indicating that, if implemented, provisions for wider vendor support of the underlying software should be sought.

Mr. High then objected to the statement made in the first sentence of the recommendation set forth on page 26 indicating that he did not believe this statement to be true. A brief discussion ensued upon the conclusion of which, and upon the recommendation of Mr. Shaw, it was agreed that the recommendation would be revised by striking the first sentence of the recommendation and revising the remaining text to indicate that the County should consider alternatives for hosting the web application, one using County staff and another using a service provider.

[Secretary's Note: A revised copy of page 26 of Report No. 3 of the "MCAMLIS Land and Utility Information System Internet Prototype Study" is attached to these minutes.]

There being no further questions, comments, or corrections, on a motion by Mr. Shaw, seconded by Ms. Olson, and carried unanimously, the minutes of the meeting of December 3, 2002, were approved as amended.

## **OLD BUSINESS**

### **Consideration of the Fourth Scheduled Report on the MCAMLIS Pilot Study Investigating the Use of Internet Technology**

Chairman Bauer noted that Mr. Thomas J. Tym, of the firm of Ruekert-Mielke, Inc., the consulting firm retained by the Regional Planning Commission on behalf of the Steering Committee to conduct the Land and Utility Information System Internet Prototype Study, was present to present the fourth and final work progress report of the study.

Chairman Bauer noted that the Committee had considered and approved conditionally, subject to directed revision, the first work progress report presented at the Steering Committee meeting held on January 24, 2002; the second work progress report at the Committee meeting held on May 7, 2002; and the third work progress report—conditionally—at today's meeting. Chairman Bauer noted further that copies of the revised final drafts of the first two reports were mailed to all Committee members on November 6, 2002, and that, based upon action taken in the consideration of the minutes of this meeting, a final draft of the third report would also be mailed to all Committee members as soon as published in final form.

Chairman Bauer noted that a preliminary draft of the fourth and final report had been provided to all Committee members for review prior to the meeting. Chairman Bauer then asked Mr. Tym to lead a page-by-page review of the fourth report with the Committee. The following comments and suggested changes to the report were made by consensus and by motion in the course of the review.

With respect to the first conclusion set forth on page 1 of the report, Mr. Shaw indicated that while he agreed that there was no compelling need for the MCAMLIS program to achieve the integration of utility and land base data, the recommendation may affect attempts to integrate such data in other counties. He, therefore, suggested, and the Committee concurred, that text with respect to this first conclusion be



expanded to document the basis for the conclusion, referencing, as appropriate, information set forth in the three earlier reports.

Chairman Bauer noted that, with respect to the third conclusion and recommendation concerning the creation of seamless cadastral maps, the strategic plan for the operation of the MCAMLIS program in calendar years 2003 through 2005, as approved by the Steering Committee at its meeting held on October 8, 2002, and amended by its approval of the minutes of that meeting at its meeting of December 3, 2002, included a project for the implementation of this recommendation.

A brief discussion ensued upon the conclusion of which it was the consensus of the Committee that, indeed, the recommendation for the creation of seamless maps was intended to apply only to the MCAMLIS cadastral maps. The Committee requested that this conclusion be clearly reflected in the text of the fourth report together with the reasons why the preparation of seamless topographic maps was not considered necessary or practical.

Chairman Bauer noted that, with respect to the recommendation concerning the provision of transactional updates for the MCAMLIS cadastral maps, the previously referenced strategic plan did not include an element for such provision. He noted that, if the Steering Committee approved the fourth report, it should direct the staff to revise the strategic plan to include the necessary work program together with an estimated cost.

Mr. Shaw suggested, and the Committee concurred, that the text concerning transactional updates should include comments that the utilities particularly have a need for such updates and should specifically identify the utilities as recipients of the transactional updates.

In answer to a question by Ms. Olson, Chairman Bauer indicated that orderly implementation of any of the recommendations coming out of the study should include the preparation of a staff memorandum reiterating the need for the particular recommendation; the specific scope and content of the work required for implementation of the recommendation; a recommended time schedule for completion; and an estimate of the attendant cost for Committee review and approval. The point of departure for the preparation of such memorandum would be appropriate sections of the study reports.

In answer to a question by Mr. High, Mr. Patterson indicated that the issue of maintaining the MCAMLIS street address database was not included in the Committee approved scope of the study and, therefore, was not required in the contract with the consultant. Accordingly, he indicated, it would be inappropriate to request the consultant to address the issue of transactional updates to the MCAMLIS street address database unless the Committee was willing to provide additional funding to the consultant for the work entailed in addressing the issue.

In response to a further question by Mr. High, Chairman Bauer indicated that Commission experience had indicated that the provision of transactional updates for topographic maps was so costly as to be impractical. He noted further in this respect that the Commission had experimented with requiring photogrammetric engineers retained to prepare new maps of areas previously mapped to identify the changes from the old to the new maps. This proved to be very time consuming and costly, as well as producing a less desirable end product. He indicated that any users wishing to identify changes between the old and new maps could most efficiently do so by overlaying the older maps with the newer. Mr. Tym agreed, indicating that the problems inherent in providing transactional data are quite different for cadastral maps than for topographic maps, and that this was true for building outlines and other planimetric detail as well as for contour lines and other hypsometric detail.



A lengthy discussion ensued concerning the conclusion and recommendation concerning the deployment of updated MCAMLIS cadastral map data. In that discussion, Chairman Bauer noted that any determination to use this technology should, as indicated in the report, await decisions by the County regarding such issues as to whether the County desires to have a single website, of which the MCAMLIS data would comprise a subset; or whether the County desires to have separate websites for different County departments, such as the Register of Deeds Office, Public Works, Parks, and Administration. He noted that this issue was further complicated by the pending decision with respect to the role which Milwaukee County itself is to assume in terms of MCAMLIS program administration. These two issues, he said, were to be addressed by the special committee that had been created to consider the project management issue. Moreover, he said, individual municipalities and the utilities may determine to utilize the Internet technology for the deployment of their own data.

In response to a question by Mr. High, Mr. Patterson indicated that all of the signatories to the agreement creating the MCAMLIS program and Steering Committee are provided MCAMLIS data on request and without charge; the attendant costs of the provision being paid for out of MCAMLIS program receipts. Municipalities and other organizations that were not signatories to the original agreement must become licensees to receive MCAMLIS data; and such data are then provided on request at the cost of provision; that is, at the cost of reproduction, handling, and transmission, no attempt being made to recover original capital costs. The Regional Planning Commission provides the requested data, incurs the attendant costs, and retains the relatively nominal fees charged for copying, handling, and transmission.

Ms. Olson pointed out that the text on page 68 of the third report indicated that the fourth report would include estimated costs of implementing all of the recommendations included in the report. She asked, and the Committee concurred, that such costs be included in the fourth report as so recommended.

Mr. High indicated that, in his opinion, the preliminary draft of the fourth report, as provided to the Committee at its meeting held on December 3, 2002, was preferable to the draft under consideration, in that it was better organized, far more complete, and more fully responsive to the contract requirements. He indicated that he was concerned that the Committee had, in approving the previous reports, accepted a number of detailed conclusions and recommendations which were not adequately reflected in the fourth report as now drafted. He indicated that his Department particularly expected each of the recommendations contained in the previous reports to be reiterated in the fourth report for either reapproval or rejection in the Committee's review of the fourth report. Mr. Shaw concurred with Mr. High's comments.

Chairman Bauer indicated that a careful comparison of the third and fourth reports as now drafted would reveal, in his opinion, only two substantive omissions in the fourth report; namely, the issue of the licensing agreement and the estimated costs of the recommendations, the latter omission having been corrected in response to Ms. Olson's observations and request. He indicated that if Mr. High did not agree, it would be helpful if he would be willing to identify all of the substantive conclusions and recommendations contained in the earlier reports that he believed were missing from the fourth report. The consultant could then revise the fourth report to incorporate, as may be appropriate, the missing conclusions and recommendations.

A lengthy discussion then ensued in which Mr. Shaw and Ms. Olson indicated that an expansion of the fourth report, as now drafted, should be required, including in the expanded report all of the substantive conclusions and recommendations set forth in the previous three reports and providing, as may be appropriate, additional details with respect to implementation of each of the recommendations as well as providing the estimates of attendant costs.



Upon conclusion of the discussion, it was moved by Mr. High, seconded by Ms. Olson, and carried unanimously, that Mr. High would provide to the management staff and the consultant a copy of the third report as approved conditionally by the Committee at today's meeting, in which information, conclusions, and recommendations that the County Department of Public Works believed should be included in the fourth report were highlighted. The consultant and management staff would then redraft the fourth report and resubmit it to the Committee for consideration at its next meeting.

#### **Request for Publication of a MCAMLIS Newsletter**

Chairman Bauer noted that Mr. Bennett had, prior to the meeting of December 3, 2002, contacted the project staff to request that the Committee consider the publication of a MCAMLIS newsletter as a means of increasing outreach activities carried on under the project. He noted that Mr. Bennett could not be present at the December 3, 2002, meeting and, therefore, the Committee had held the request over for consideration at this meeting. He noted that Mr. Bennett also was not able to be present at today's meeting.

Chairman Bauer noted further that all Committee members had, at the meeting of October 8, 2002, received a copy of a letter dated September 26, 2002, from Mr. Thomas D. Kenney, Acting Director of the Milwaukee County Department of Public Works, asking that the Steering Committee consider the transition of certain MCAMLIS project management responsibilities from SEWRPC to the County Department of Public Works. The Committee had, at that meeting, acted to table the letter request pending further consideration by the County interests concerned.

Chairman Bauer noted that this matter had been considered further at the meeting of December 3, 2002, and that, as reported in the minutes of that meeting, acting in response to the Committee's direction, he had, as Chairman, acted to appoint a subcommittee consisting of the Milwaukee County Register of Deeds, representatives of the County Departments of Administration and Public Works, and the Executive Director of the Regional Planning Commission, who was to convene the subcommittee. He noted that that subcommittee had not as yet met to consider the possible transfer of project management responsibilities.

Since the publication of a MCAMLIS newsletter, in either conventional or electronic format, would be the responsibility of the management staff, he suggested that the matter be held in abeyance until a decision concerning the management of the project is made by the aforementioned subcommittee and the full Committee.

A brief discussion ensued upon the conclusion of which it was the consensus of the Committee that this matter be held in abeyance until the issue concerning how project management responsibilities are to be met in the future is resolved.

#### **REPORTS**

##### **Report by Commission Staff on the Status of the Milwaukee County Floodland Mapping Project**

Chairman Bauer noted that all members of the Committee had received a copy of a SEWRPC Staff Memorandum documenting the current status of the MCAMLIS floodland mapping project for review prior to the meeting (copy of Memorandum attached to these minutes). He noted that this constituted the sixth such status report. He asked if there were any questions or comments on the report as submitted. He also noted that, in order to familiarize the Committee with the end products of the project, the staff had

brought two completed floodplain and floodway maps for review by interested Committee members and he directed attention to the maps on display.

Ms. Lindholm, Central Drafting and Records Manager, Infrastructure Service Division, City of Milwaukee, asked that two copies of each of the display maps be provided to the Milwaukee City Engineers Office for review and comment. Mr. Patterson indicated that this would be done.

There being no further questions or comments on the report, it was the consensus of the Committee that the report be placed on file via the minutes of the meeting

**Report by Commission Staff on the Status of Conversion of MCAMLIS Digital Map File Database to ESRI ArcInfo Format**

Mr. Patterson reported that the Steering Committee had, at its meeting of July 10, 2001, approved a project for the translation of the MCAMLIS digital map files from the GenaMap and Intergraph DGN formats to the ESRI format. The work was to result in the translation of all MCAMLIS digital topographic maps and the majority of the MCAMLIS digital cadastral maps into ESRI ArcInfo format. With respect to the cadastral mapping work, the work will include the City of Milwaukee cadastral maps prepared to MCAMLIS standards in the Phase 1 through Phase 5 transformation project areas, and in the three project areas for which the City staff recompiled maps.

Mr. Patterson noted that all members of the Steering Committee had received a copy of a map showing the status of the conversion of the MCAMLIS digital topographic map files to the ESRI ArcInfo format for review prior to the meeting (copy of map attached to these minutes). Mr. Patterson further noted that all of the MCAMLIS topographic mapping had been converted to ESRI ArcInfo format.

Mr. Patterson noted further that all members of the Steering Committee had received a copy of a second map showing the status of the conversion of the MCAMLIS digital cadastral map files to the ESRI ArcInfo format (copy of map attached to these minutes). Mr. Patterson noted that the map delineated those areas for which the conversion of the MCAMLIS cadastral maps had been completed, and those areas for which the conversion was underway.

There being no questions or comments on the report, it was the consensus of the Committee that the report be placed on file via the minutes of the meeting.

**Report by City of Milwaukee Staff on the Status of Milwaukee Cadastral Map Transformation Projects**

Chairman Bauer noted that all members of the Steering Committee had received a copy of the status report on the City of Milwaukee cadastral map transformation projects for review prior to the meeting. Chairman Bauer then asked Ms. Olson to review the report with the Committee.

Ms. Olson then briefed the Committee on the status of the work utilizing the status report provided.

Chairman Bauer noted that the recompilation and transformation of the City of Milwaukee cadastral maps were vital and represented, in his opinion, a sound expenditure of MCAMLIS funds. He noted that preparation of maps that combined planimetric, hypsometric and physiographic data with cadastral data--such as the flood hazard maps on display at the meeting--would not be possible utilizing the old City of Milwaukee cadastral maps.



In answer to a question from Mr. Misun, Ms. Olson indicated that the transformed cadastral maps were delivered to the Regional Planning Commission staff for quality control in MicroStation electronic format and that the District would be able to obtain the revised maps in both ESRI and MicroStation format.

In answer to a question by Mr. High, Ms. Olson said that the City of Milwaukee was not prepared to adopt and use the recompiled, transformed City of Milwaukee cadastral maps internally in the MCAMLIS format. Chairman Bauer observed that for this unfortunate reason, the MCAMLIS program will, in accordance with Committee direction, have to maintain the recompiled and transformed MCAMLIS maps covering the City of Milwaukee. He indicated that he hoped that at some future time this will change.

There being no further questions or comments on the report, it was the consensus of the Committee that the report be placed on file via the minutes of the meeting (copy of report attached to these minutes).

**Report by Milwaukee County Register of Deeds Staff on MCAMLIS Street Address File and Cadastral Map Maintenance Operations**

Chairman Bauer noted that all Committee members had received copies of maps showing the status of the Milwaukee County cadastral map and street address file maintenance as of January 13, 2003 for review prior to the meeting. He then asked Ms. Kathleen A. Bach, GIS Technician, Milwaukee County Register of Deeds office, to report on the status of the work concerned.

Ms. Bach then briefed the Committee on the status of the work utilizing two status maps; one relating to the street address database, and one to the cadastral map file.

There being no questions or comments on the report, it was the consensus of the Committee that the report be placed on file via the minutes of the meeting (copy of work status maps attached to these minutes).

**Report by Milwaukee County Surveyor on Control Survey System Maintenance**

Chairman Bauer noted that all Committee members had received a copy of a Memorandum Report on the activities of the Milwaukee County Surveyor in calendar year 2002 for review prior to the meeting. He noted that this was the first such report to be provided to the Steering Committee and indicated that he had suggested its preparation and submittal in order to familiarize the Committee with the work concerned since, by direction of the Milwaukee County Board, that work is funded through the MCAMLIS Steering Committee.

In response to a question by Ms. Olson, Chairman Bauer indicated that copies of the dossier sheets prepared for each of the U.S. Public Land Survey corners, which were remonumented and referenced and for which control survey data may have been revised, are routinely provided to the City of Milwaukee Commissioner of Public Works together with copies of revised control summary diagrams. He indicated that the historic practice of the Regional Planning Commission had been to also revise the topographic and cadastral maps concerned. He indicated further he was not sure that this procedure was being continued and suggested, and the Committee concurred, that the project management staff provide a Memorandum Report on this issue to the Committee at its next meeting.

In answer to a question by Mr. LaFave, Chairman Bauer indicated that anyone desiring to see a survey monument in place should obtain from Mr. Patterson a copy of the dossier sheet for the corner or corners concerned, such as the sheet attached to the Memorandum Report. This would permit anyone to readily find and observe the monument in the field. In answer to a further question from Mr. LaFave, he indicated that, in accordance with earlier practice, some of the survey monuments were set in a cast iron hand hole with the top of the monument well below the surface of the surrounding pavement. Experience



had shown this to be undesirable and in all new installations the top of the monument is set essentially flush with the surface of the surrounding pavement. In unpaved areas the monuments may be set, depending upon the site-specific conditions, either with tops slightly above or slightly below the surrounding grade.

There being no further questions or comments on the report, it was the consensus of the Committee that the report be placed on file via the minutes of the meeting (copy of report attached to these minutes).

**Report by Project Staff on Changes Made to the Wisconsin Land Information Program 2002 Grant Distribution**

Chairman Bauer noted that all Committee members had received a copy of a staff report on changes to the Wisconsin Land Information Program calendar year 2002 grant distributions for review prior to the meeting (copy of staff report attached to these minutes). He then asked Mr. Patterson to review the report with the Committee.

Mr. Patterson indicated that pursuant to State legislation, the Wisconsin Land Information Board (WLIB) and Wisconsin Land Information Program (WLIP) were to be dissolved as of September 1, 2003. Consequently, the Board was making additional funding available for land records modernization programs at the County level. Mr. Patterson said that, for the reasons set forth in the Memorandum, he recommended that the Committee authorize two additional grant applications be filed in order to utilize the total amount of the grant being made available. The two additional proposed projects, like the project approved by the Committee at its meeting held on October 8, 2002, would support additional cadastral map transformation projects in the City of Milwaukee.

After brief discussion, Chairman Bauer asked for approval of the staff recommendation. On a motion by Mr. Misun, seconded by Mr. High, and carried unanimously, project staff was authorized to submit three applications to the WLIB for grants totaling \$200,368 in support of additional cadastral map transformation work in the City of Milwaukee.

**Report by Project Staff on Status of License Agreements**

Chairman Bauer noted that all members of the Steering Committee had received a copy of the table setting forth all of the license agreements from January 1, 2002, through January 15, 2003, for review prior to the meeting.

There being no questions or comments on the report, it was the consensus that the report be placed on file via the minutes of the meeting (copy of table setting forth executed license agreements attached to these minutes).

**Report by Milwaukee County Staff on Status of MCAMLIS Cash Flow**

Chairman Bauer noted that all Committee members had received a copy of a table summarizing the status of the MCAMLIS project cash flow as of December 31, 2002, for review prior to the meeting. He noted that the County staff had provided an updated table setting forth the cash flow status also as of December 31, 2002, and a copy of the updated table was then distributed. Chairman Bauer then asked Mr. Lewandowski to review the table with the Committee.

Mr. Lewandowski indicated that the County accounting practices provided for revisions of previous year's accounts for a period of up to 60 days into the succeeding year and, therefore, the Committee was being provided with a cash flow statement that had been revised through January 19, 2003, the data of the

report, however, being for the end of calendar year 2002. He indicated that further revisions may still be made under the County's accounting practices.

Mr. Lewandowski noted that the fact that the penultimate column of the table showed a negative end reserve did not mean that the MCAMLIS program had a deficit. This year end reserve figure reflected encumbrances made in calendar year 2002 that, in fact, will carry over into 2003 and be paid for in part by monies received in 2003.

There being no questions or comments on the report, it was the consensus of the Committee that the report be placed on file via the minutes of the meeting (copy of the updated table setting forth the cash flow status as of December 31, 2002, attached to these minutes).

### **NEW BUSINESS**

Chairman Bauer indicated that project staff had no new business to bring before the Committee and asked if any of the members wished to raise an item of new business.

Mr. Shaw indicated that the meeting room currently available to the Committee was small and somewhat cramped and suggested that an effort be made to obtain a more suitable meeting room. Chairman Bauer indicated that he believed it important for the Committee to continue to meet in the County Courthouse and asked if Mr. LaFave would be willing to explore the availability of a larger meeting room for the Committee's use within the Courthouse. Mr. LaFave indicated that he would pursue the matter.

### **ELECTION OF OFFICERS FOR 2003**

#### **Election of Steering Committee Officers for 2003**

Chairman Bauer noted that the Committee should, in accordance with past practice, elect officers for calendar year 2003. He indicated that the Committee could, if it so desired, consider the needed elections now; or could choose to appoint a Nominating Committee and consider the report of that Committee and the election of officers at its next meeting. He noted that the Committee would need to elect a Chairman and a Vice Chairman, and, if it so desired, would need to re-designate the project staff as Secretary.

In response to a question by Ms. Olson, Chairman Bauer indicated that it was highly unlikely that the program management issue would be resolved by the time of the next Committee meeting, but, if and when the program management responsibilities are transferred to the County Department of Public Works as has been requested, then the Committee secretarial responsibilities would also be transferred to that Department. A brief discussion ensued in which Mr. Shaw suggested, and the Committee concurred, that the Chairman appoint Mr. Bennett as a Nominating Committee of one and request Mr. Bennett to bring his nominations for the position of Chairman and Vice Chairman to the Committee at its next meeting.

### **CORRESPONDENCE**

#### **Letter from Mr. Reinhard B. Meihsner Concerning Integration of City of Milwaukee and MCAMLIS Street Address Data**

Chairman Bauer distributed copies of a letter from Mr. Reinhard B. Meihsner, a former member and Chairman of the Committee, suggesting that initiation of the work effort required to integrate the City of Milwaukee street address data with the MCAMLIS database be considered at this time.



Mr. Patterson noted that the work effort concerned was specifically identified in the strategic plan for the MCAMLIS program over the calendar year 2003 through 2005 time period, as that program had been approved by the Steering Committee at its meeting held on October 8, 2002, and as subsequently revised, as reflected in the minutes of the October 8, 2002, meeting. Mr. Patterson indicated that, following Committee practice, the project management staff would prepare a staff memorandum for consideration by the Committee that would set forth the objective of the proposed work effort, that would outline the need for work; specify the scope and major divisions of the work; recommend the most effective means for accomplishing the work; recommend a practical time sequence and schedule for the work; and provide an estimated cost of the work.

Mr. Meihnsner observed that in his report on this matter presented to the Steering Committee at its meeting held on June 25, 2002, it was concluded that the City of Milwaukee street address file could, because of its accuracy as revealed by a random field inspection made, be directly integrated into the MCAMLIS database.

Ms. Olson indicated that the City would be pleased to share the City street address file with MCAMLIS as that file now stands. She noted the file contained over 300,000 street addresses and indicated further that she could not support a field verification effort, being confident of the accuracy of the file.

After brief discussion concerning the matter, it was the consensus of the Committee that the staff proceed in the manner outlined by Mr. Patterson.

Chairman Bauer noted that since Mr. Meihnsner was present and since the Committee's action by consensus would be noted in the minutes of the meeting, which Mr. Meihnsner regularly received, no formal reply to the letter should be necessary (copy of letter from Mr. Meihnsner attached to these minutes.)

#### **DATE, TIME, AND PLACE OF NEXT MEETING**

Chairman Bauer then asked the Committee to consider the date, time, and place for the next Committee meeting. After some brief discussion, it was determined that the next meeting of the Steering Committee should be scheduled to be held on April 8, 2003, at 9:00 A.M., in a meeting room to be determined.

#### **ADJOURNMENT**

There being no further business to come before the Steering Committee, on a motion by Mr. Shaw, seconded by Ms. Olson, and carried unanimously, the meeting adjourned at 11:05 A.M.

Respectfully submitted,

Thomas D. Patterson  
MCAMLIS Project Manager





- 12 -

## MCAMLIS Participant Requirements:

The following is a list of software requirements to access the web application:

Hardware/Software Requirements	Cost
Microsoft Windows XP PRO	\$300
Microsoft Internet Explorer v 5.0 or newer	No Cost
Monitor w/1024 x 768 screen resolution (min.)	\$300-\$600

While MicroSoft Explorer is the recommended browser for this application, it should be noted that ArcIMS supports additional browsers including the following:

ArcIMS 4.0.1 Supported Web Browsers (Clients)		
Web Browser	Support Level	Notes
Internet Explorer 5.0	Fully supported	
Internet Explorer 5.5	Fully supported	
Internet Explorer 6.0	Fully supported	
Netscape Communicator 4.75	Fully supported	Java Custom Viewer is not supported in the Netscape browser.
Netscape Communicator 4.76	Untested	
Netscape Communicator 6.0	Fully supported	Java Custom Viewer is not supported in the Netscape browser.
Netscape Communicator 6.1	Unknown	

## Recommendation

Based on the current budget restraints in Milwaukee County, the lack of trained technical staff with regards to ArcIMS development and support, and improbability that additional positions will be added, it would seem to make the most sense to have the data and web application hosted by a web hosting service provider. The data and web application could be hosted either by a web hosting service provider or by Milwaukee County. Physical location of the site is not critical. The study calls for the hardware and software to be purchased by MCAMLIS and the development work is already complete. Any upgrades or modifications required would be extra cost in addition to the cost of hosting the application. If the data and web application were to be hosted initially by a web hosting service provider and should—Should Milwaukee County decide to take over the maintenance and hosting in the future, the web application can be simply removed from the web hosting service providers' server and installed on a County server, for approximately \$1,500. The cost to hire a web hosting service provider to remove and re-install the web application is approximately \$1,500.

## SECURITY

Based on concerns regarding access to various data sets, including water distribution and public utility facilities, a secured web page and login process was designed which requires an authorized user name and password. Since sophisticated hackers have been able to compromise even the most secure computer networks, and the fact that most of the information is readily available through direct contacts with the data suppliers (e.g. MCAMLIS, We Energies, City of Milwaukee, etc.) the security measures and encryption built into the secured web page and login process are fairly simple. A Microsoft SQL Server database table contains the available user

# SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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## MEMORANDUM

**TO:** MCAMLIS Steering Committee  
**FROM:** SEWRPC Staff  
**DATE:** January 10, 2003  
**SUBJECT:** STATUS REPORT NO. 6 ON MILWAUKEE COUNTY  
FLOODLAND MAPPING PROJECT

This memorandum sets forth the progress made on the Milwaukee County Floodland Mapping project from September 24, 2002, through December 3, 2002. This status report addresses project progress in the following three major areas and also identifies major issues that have arisen:

- Data Acquisition
- Hydrologic and Hydraulic Modeling
- Floodland Map Preparation

Overall, the Phase I portion of the project is about 50 percent completed. Progress is summarized in the attached Exhibit 1 and is graphically summarized on the map attached hereto as Exhibit 2.

### DATA ACQUISITION

During the period of September 24 2002, through December 31, 2002, the following data acquisition activities were carried out:

- Work continued on coordination of the project work with the Milwaukee Metropolitan Sewerage District (MMSD), the Wisconsin Department of Natural Resources (WDNR), the Wisconsin Department of Transportation (WisDOT), and the City of Milwaukee. In general, where Phase I data have not been acquired, cooperative efforts are underway to obtain the data.
- The following data were obtained from the MMSD and its consultants and reviewed by the Commission staff: 1) hydrologic model for the Menomonee River watershed; and 2) hydraulic model for the main stem of the Menomonee River.
- As-built construction drawings were obtained from the City of Milwaukee for two Milwaukee River Parkway bridges over the west channel of the Milwaukee River near its confluence with



Lincoln Creek and for the detention basin located near N. 68th Street and W. Dean Road in the Southbranch Creek subwatershed.

- Preliminary drafts of large-scale topographic maps for 25 U.S. Public Land Survey one-quarter Sections along Lincoln Creek and Southbranch Creek were delivered. The subject maps reflect the MMSD flood control and environmental restoration projects recently completed for those streams. Review of those maps for quality control—i.e. for conformance to the specifications governing their preparation—was begun.

## **HYDROLOGIC AND HYDRAULIC MODELING**

During the reporting period, progress on hydrologic and hydraulic modeling for Phase I of the project included the following:

### **Milwaukee River Watershed**

- Work continued on the U.S. Army Corps of Engineer HEC-RAS river analysis systems hydraulic model of the main stem of the Milwaukee River that was developed by the Commission staff as reported in the fourth and fifth project status reports. The primary focus was on modeling the flow splits between the east, west, and main channels of the river near its confluence with Lincoln Creek and on reviewing bridge hydraulic conditions.
- Work continued on modifying the U.S. Environmental Protection Agency (USEPA) SWMM hydrologic model of the Southbranch Creek subwatershed to assure consistent application of the methodology concerned throughout the subwatershed.

### **Menomonee River Watershed**

- Substantial work was completed on developing planned year 2020, existing channel condition hydrologic and hydraulic models. The base models used were developed under previous Regional Planning Commission studies and the MMSD Phase 1 and 2 watercourse system planning efforts.

## **FLOODLAND MAP PREPARATION**

- During the reporting period, map preparation activities were deferred while the Commission Geographic Information Systems staff completed the conversion of all MCAMLIS topographic and cadastral maps to ArcInfo format.

## **MAJOR PROJECT ISSUES AND CONSIDERATIONS**

1. Hydrologic Modeling Procedure Approvals—It was reported in the fifth status report, dated September 23, 2002, that a USEPA HSPF course sponsored by the U.S. Geological Survey and the Regional Planning Commission was to be held at the Commission offices in early October 2002. It was also stated that it was the Commission staff understanding that after attending that course engineering staff of the WDNR Southeast Region would begin to review the continuous simulation hydrologic analyses submitted by the Commission staff under the MCAMLIS/MMSD floodland mapping project. At that time, the apparent willingness of WDNR staff to evaluate HSPF continuous simulation models on their merits was perceived as positive development in the hydrologic modeling approval situation.

The WDNR, however, has once again altered its approach to the continuous simulation issue. On November 6, 2002, a meeting was held between the staffs of Post, Buckley, Schuh & Jernigan (PBS&J), the Federal Emergency Management Agency's (FEMA) map coordination contractor; WDNR; and SEWRPC. At that meeting, the Commission staff was informed that, as part of their review of the hydrologic study for the Pike River watershed in Kenosha and Racine Counties, PBS&J was developing a set of standards for acceptable continuous simulation modeling studies. Although FEMA and PBS&J had previously indicated to the Commission staff that they were in general agreement with the analysis for the Pike River watershed, this initiative was undertaken by FEMA in an effort to serve as an arbitrator to resolve the continuous simulation issues that were raised by WDNR. PBS&J indicated to the Commission staff that the results of their review would be available around the end of 2002, but as yet, they have not been provided. Commission staff believe that the PBS&J review should generally support the continuous simulation modeling procedures as practiced by the Commission and the MMSD. Accordingly, work is proceeding with the necessary continuous simulation hydrologic analyses for the MCAMLIS/MMSD project.

As indicated in previous status reports, SEWRPC Staff Memoranda summarizing the proposed hydrologic modeling approach for the Milwaukee River main stem and the entire Underwood Creek subwatershed were sent to WDNR and FEMA on July 24, 2002, and September 16, 2002, respectively. Both agencies are reviewing the memoranda, but to date have not replied.

2. Scheduling—It is proposed to maintain the revised Phase I project schedule set forth in the June 18, 2002, fourth status report to the Steering Committee. Under that schedule, the completion date for the Phase I work is June 30, 2003.

\* \* \*

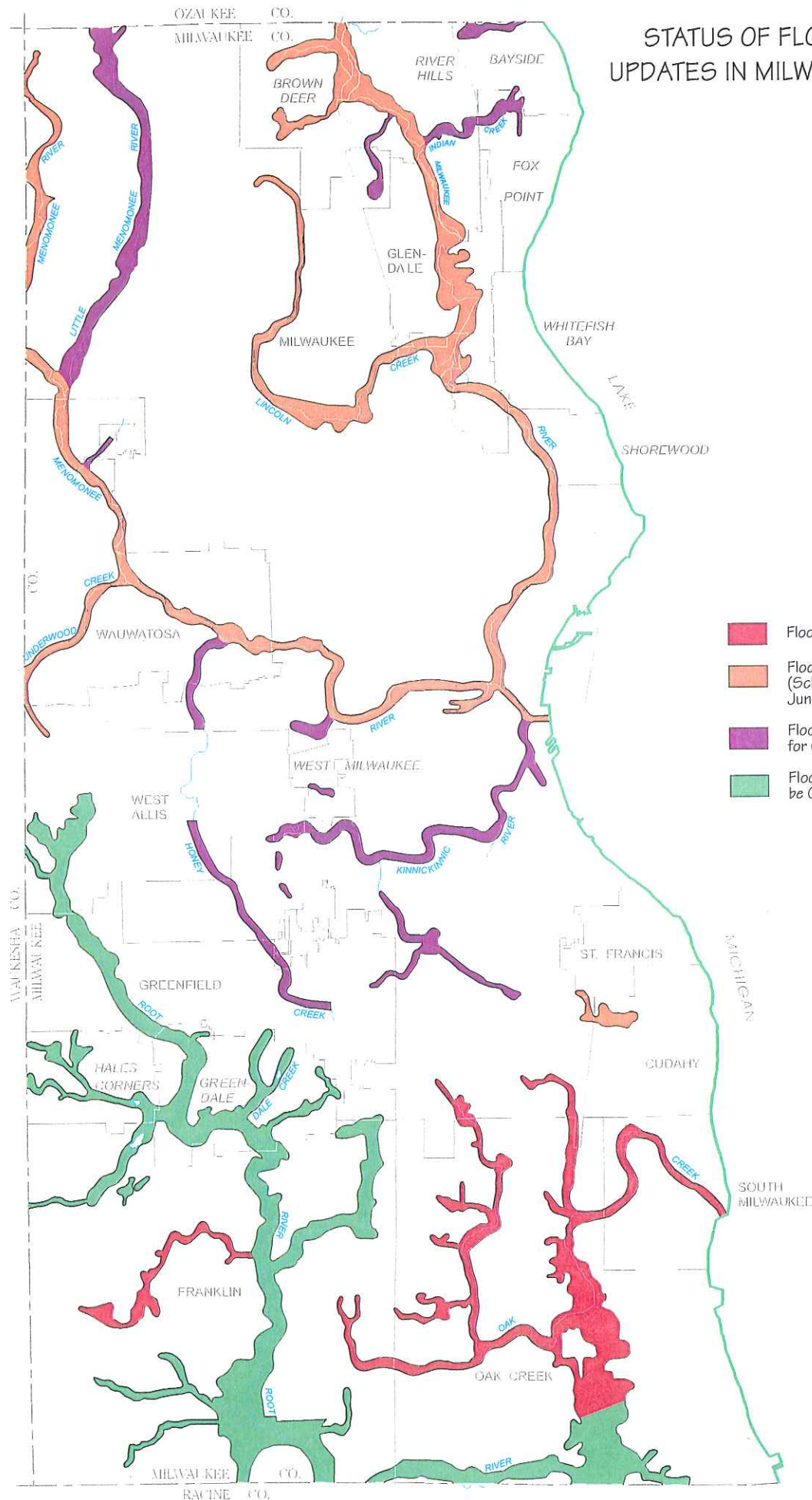


Exhibit 1

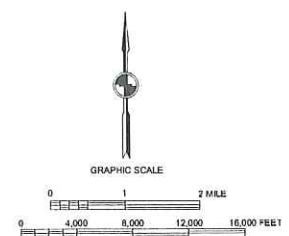
STATUS OF MCAMLIS MILWAUKEE COUNTY FLOODLAND MAPPING PROJECT: DECEMBER 31, 2002

Major Area	Data Acquisition (percent complete)					Hydrologic and Hydraulic Modeling (percent complete)					Floodland Map Preparation (percent complete)				
	20	40	60	80	100	20	40	60	80	100	20	40	60	80	100
Phase I															
Kinnickinnic River Watershed															
Lake Michigan Coastal Flooding Areas															
Lake Michigan Direct Drainage Area - Fish Creek															
Menomonee River Watershed															
Milwaukee River Watershed															
Oak Creek Watershed															
Legend Creek (Root River Watershed)															

# STATUS OF FLOODPLAIN MAPPING UPDATES IN MILWAUKEE COUNTY: 2003



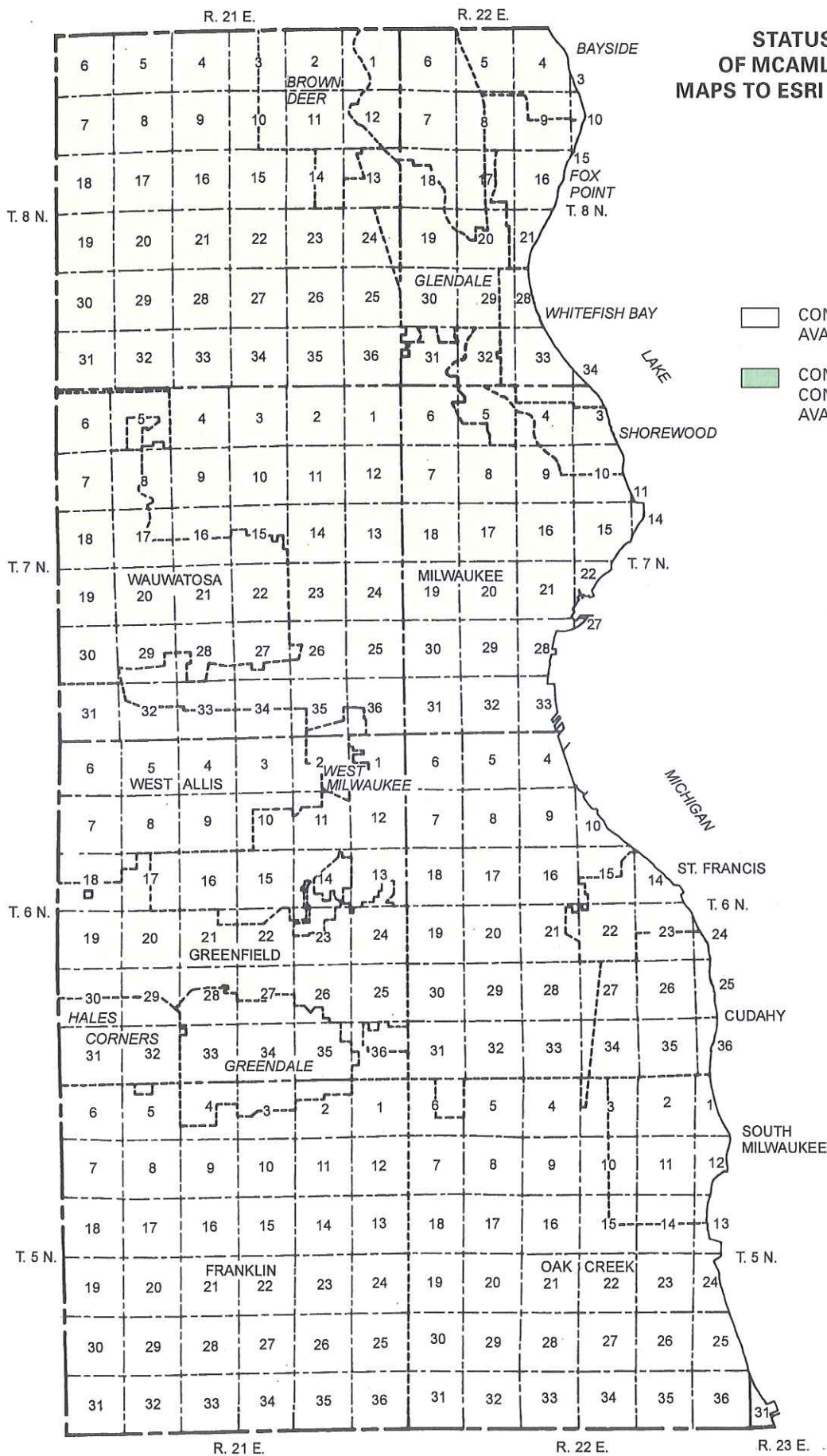
- Floodplain Mapping Completed
- Floodplain Mapping In Progress (Scheduled for Completion by June 30, 2003)
- Floodplain Mapping (Scheduled for Completion by June 30, 2003)
- Floodplain Mapping Scheduled to be Completed Under Phase 2



Source: SEWRPC.



# STATUS OF THE CONVERSION OF MCAMLIS DIGITAL TOPOGRAPHIC MAPS TO ESRI ARCINFO COVERAGE FORMAT



- ☐ CONVERTED AND AVAILABLE FOR DISTRIBUTION
- ☐ CONVERSION AND QUALITY CONTROL IN PROGRESS — NOT AVAILABLE FOR DISTRIBUTION

DECEMBER 31, 2002

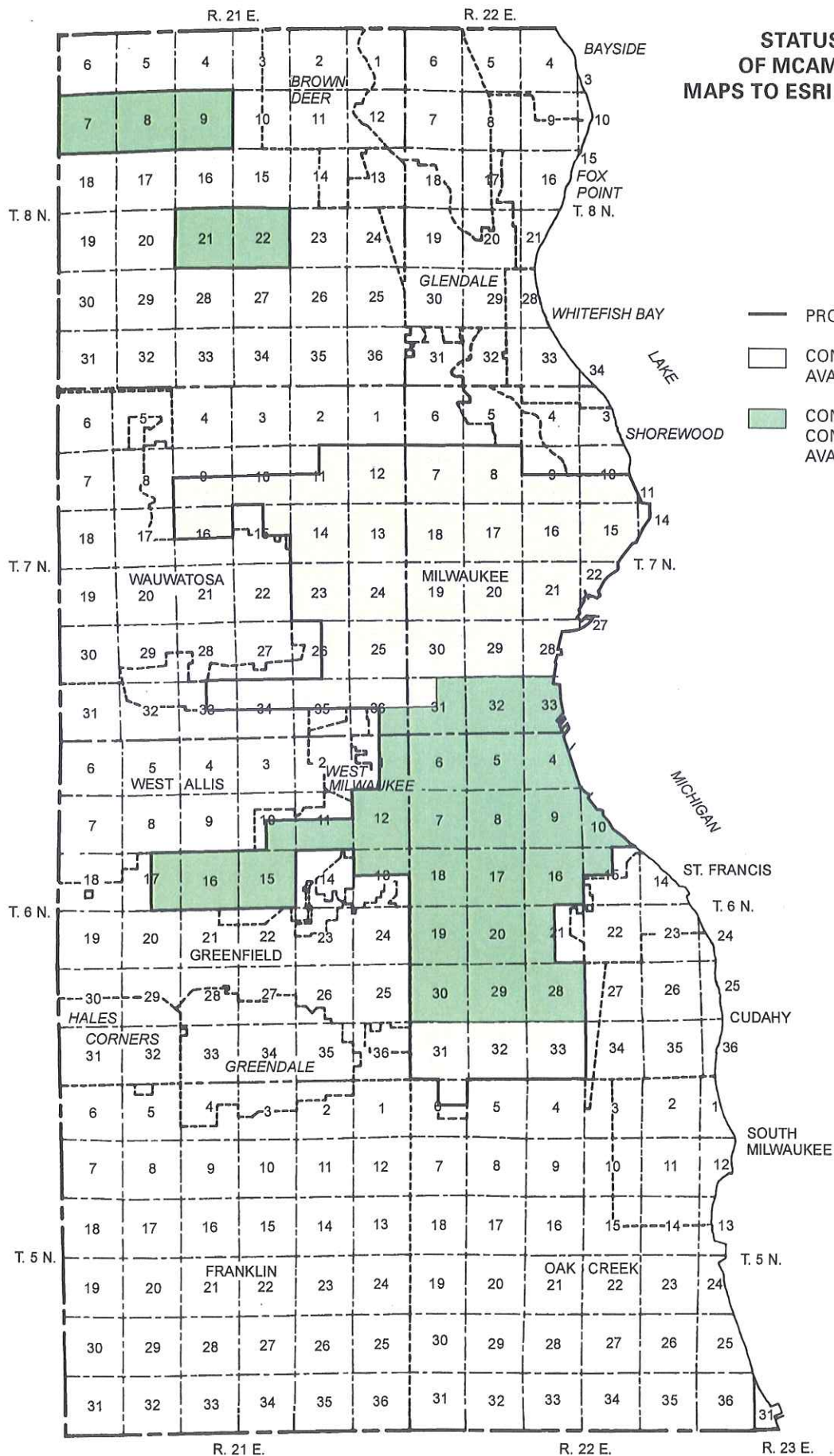


GRAPHIC SCALE

0 3 MILES

Source: MCAMLIS Project Manager.

# STATUS OF THE CONVERSION OF MCAMLIS DIGITAL CADASTRAL MAPS TO ESRI ARCINFO COVERAGE FORMAT



- PROJECT AREA BOUNDARY
- CONVERTED AND AVAILABLE FOR DISTRIBUTION
- CONVERSION AND QUALITY CONTROL IN PROGRESS — NOT AVAILABLE FOR DISTRIBUTION

JANUARY 15, 2003



GRAPHIC SCALE

0 3 MILES

Source: MCAMLIS Project Manager.



## **STATUS OF MCAMLIS MAPPING PROJECTS BEING CARRIED OUT BY CITY OF MILWAUKEE STAFF**

The City of Milwaukee recompilation project is comprised of 40 U.S. Public Land Survey one-quarter section-based maps as delineated on the accompanying status map. These cadastral maps are being compiled to fit the MCAMLIS survey control system utilizing original land records and associated descriptions and documents. This work has been carried out by the staff of the City of Milwaukee, Infrastructure Service Division, Central Drafting and Records Office. As of November 30, 2001, all 40 of the quarter-section maps have been completed by the City of Milwaukee staff and have been accepted by the SEWRPC staff as of this date as being in compliance with those specifications.

The City of Milwaukee cadastral map transformation project (Phase 1) consists of 93 U.S. Public Land Survey one-quarter-section-based existing City of Milwaukee maps that are being refit to the MCAMLIS survey control system utilizing computer algorithms. These 93 one-quarter section maps are delineated on an accompanying status map. This work is being carried out by the staff of the City of Milwaukee, Department of Administration, Information and Technology Management Division. As of January 8, 2002, City of Milwaukee Geographic Information Systems staff have completed the transformation all 93 of these map sheets, all of which have been sent to SEWRPC staff for their review to determine compliance with MCAMLIS specifications and standards. Of the 93 map sheets submitted, 85 have been accepted by SEWRPC staff as meeting the relevant specifications. The agreement governing this project calls for work to be completed by October, 2002. Currently, expect that this project will be completed by first quarter 2003.

The City of Milwaukee cadastral map transformation project (Phase 2) consists of 24 U.S. Public Land Survey one-quarter-section-based maps as delineated on an accompanying status map. All 24 of the map sheets have been accepted as being in compliance with the specifications in this project area. The agreement governing this project calls for work to be completed by June 2002. This project was completed February 14, 2002.

The City of Milwaukee cadastral map transformation project (Phase 3) also consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. All 24 map sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by June 2002. This project was completed February 14, 2002.

The City of Milwaukee cadastral map transformation project (Phase 4) also consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. As of January 8, 2002, City of Milwaukee Geographic Information Systems staff have completed the transformation of all 24 map sheets. All 24 maps from this project area have been submitted to SEWRPC staff for review and, accordingly, 19 map sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by December 2002. Currently, expect that this project will be completed by mid-January 2003.

The City of Milwaukee cadastral map transformation project (Phase 5) also consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. As of January 8, 2002, all 24 maps map sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by December 2002. This project was completed January 3, 2003.

The City of Milwaukee cadastral map transformation project (Phase 6) consists of 26 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. As of January 8, 2003, 17 maps from this project area have been submitted to SEWRPC staff for review and accordingly, 13 maps sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by December 2003. There is currently no reason to expect that the

project completion schedule will not be met.

The City of Milwaukee cadastral map transformation project (Phase 7) consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. As of January 8, 2003, No maps from this project area have been submitted to SEWRPC staff for review. The agreement governing this project calls for work to be completed by April 2004. There is currently no reason to expect that the project completion schedule will not be met.

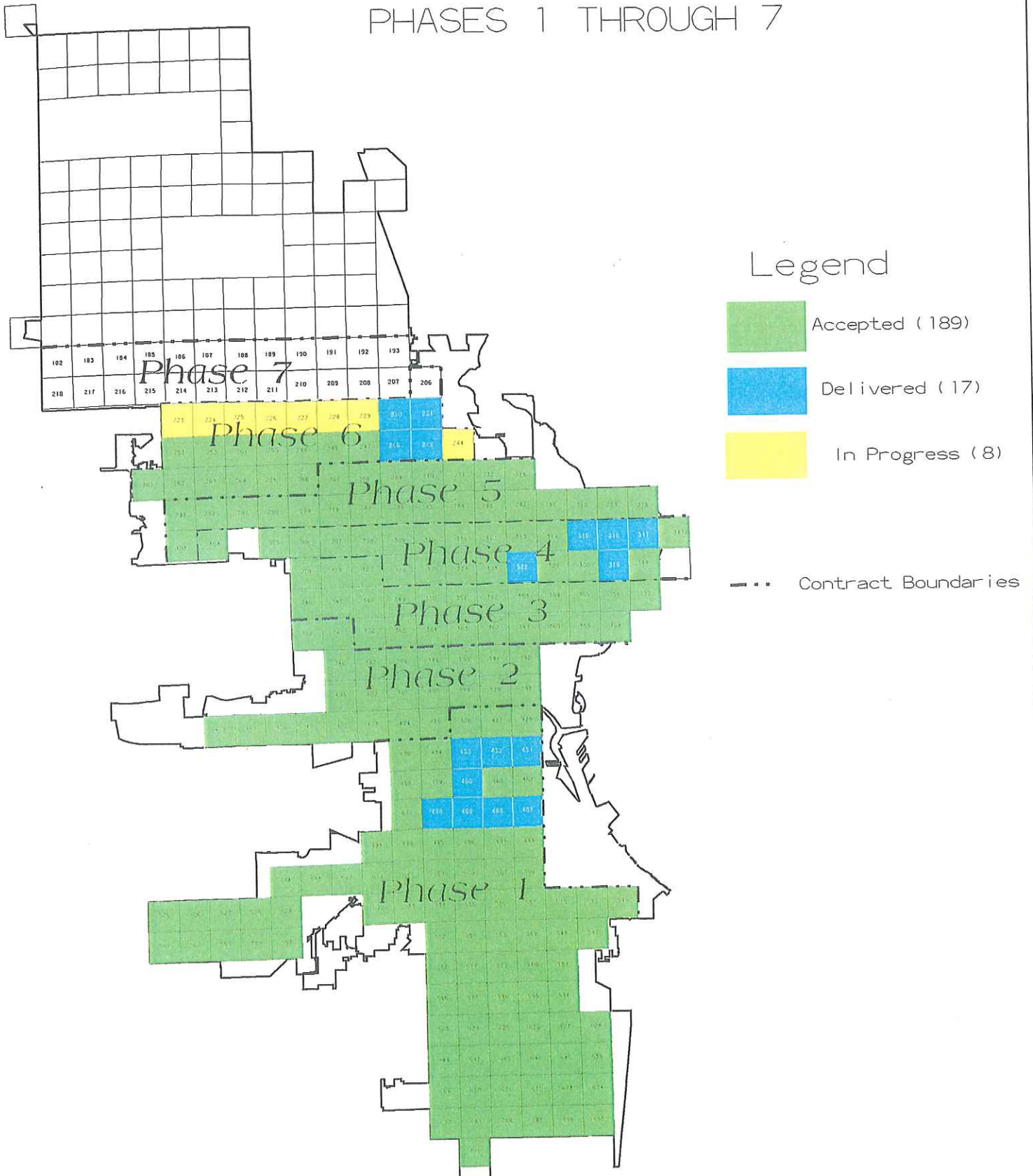
\* \* \*

NAO/TDP/ame  
01-10-03  
#43453 v1 - status-mcamlis projects at c/milw staff



# MCAMLIS Transformation Project Progress Map

## PHASES 1 THROUGH 7



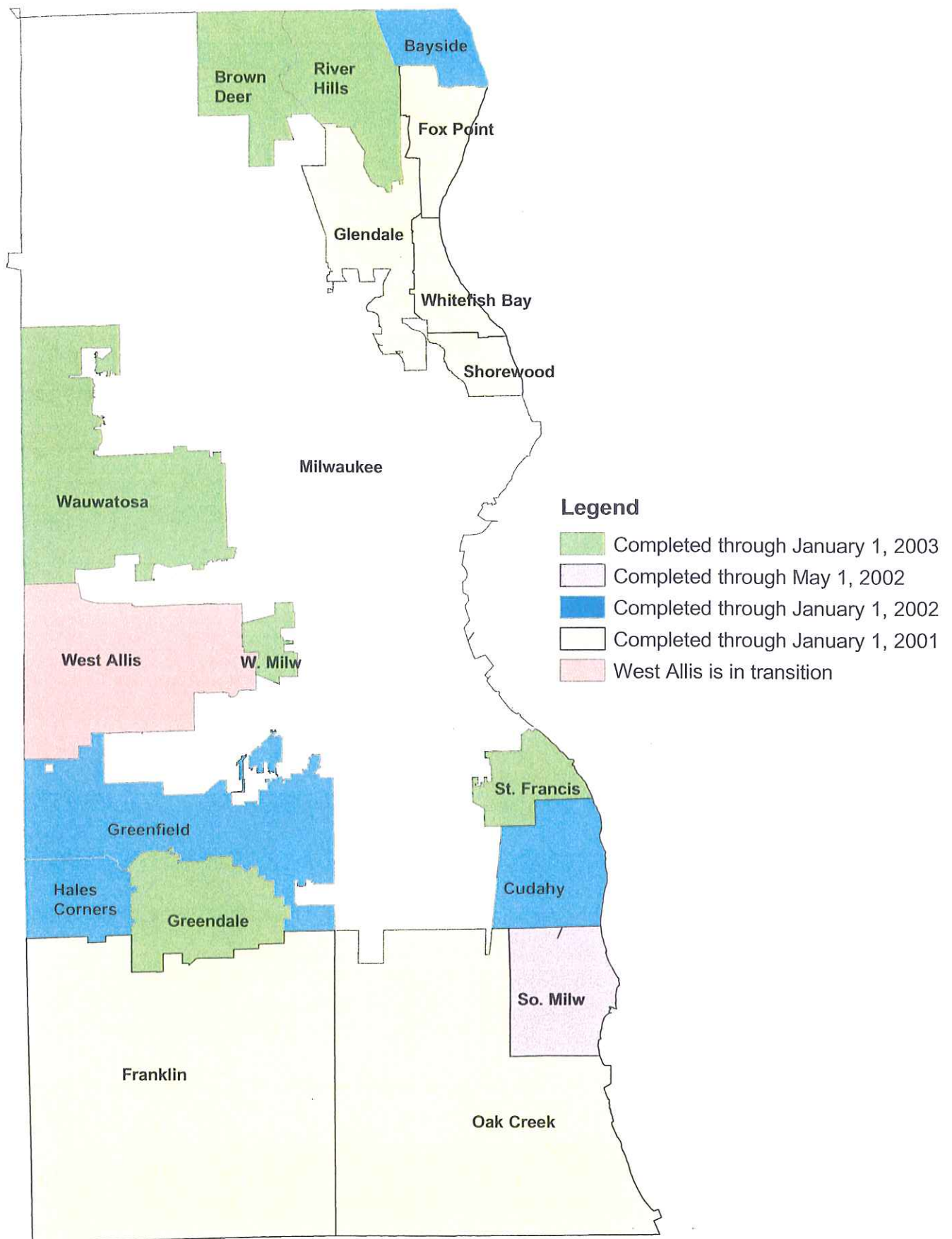
## COMPLETED PHASES



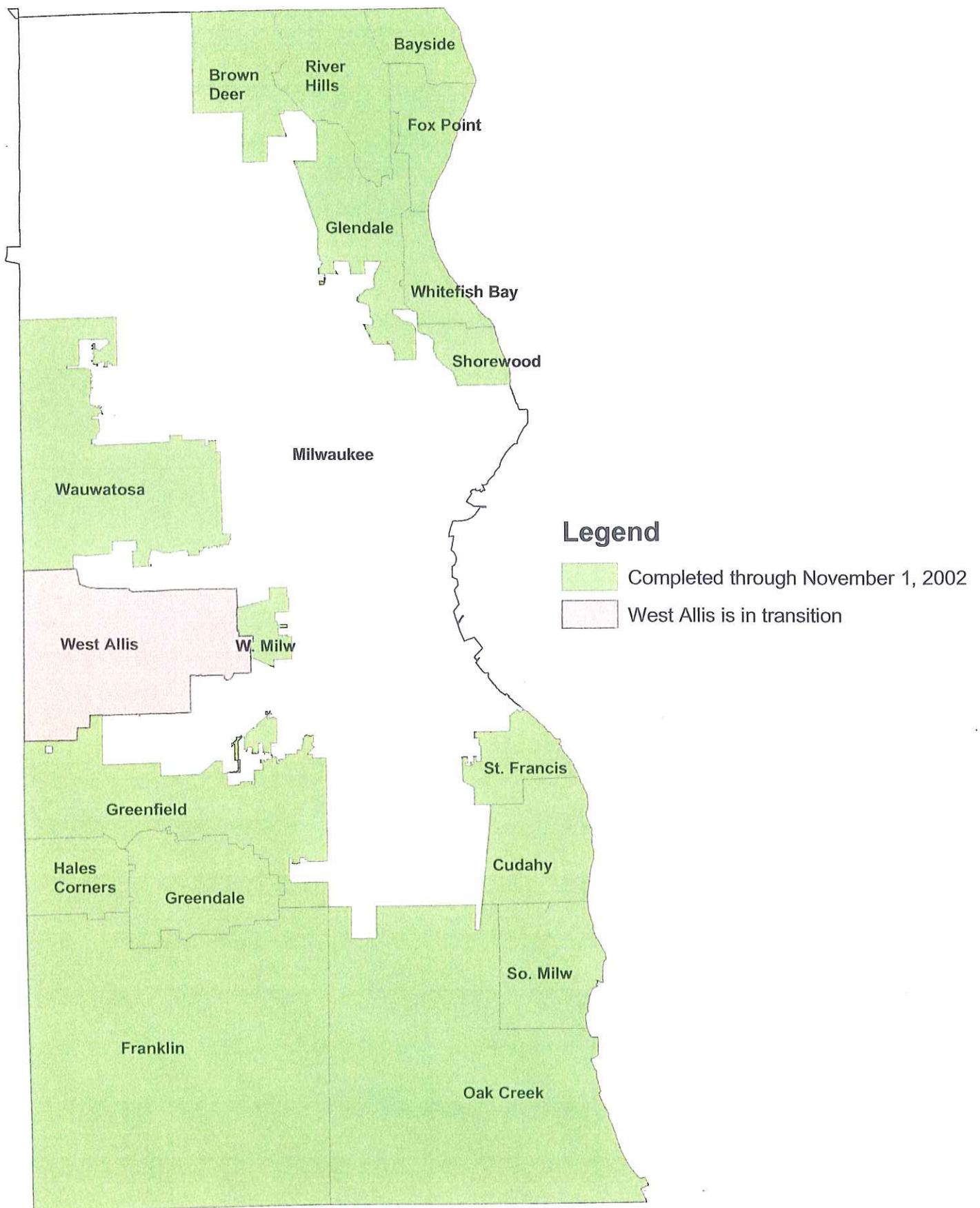
1999 10 10



# Milwaukee County Address Status as of January 13, 2003



# Milwaukee County Cadastral Status as of January 13, 2003





## MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: Milwaukee County Surveyor

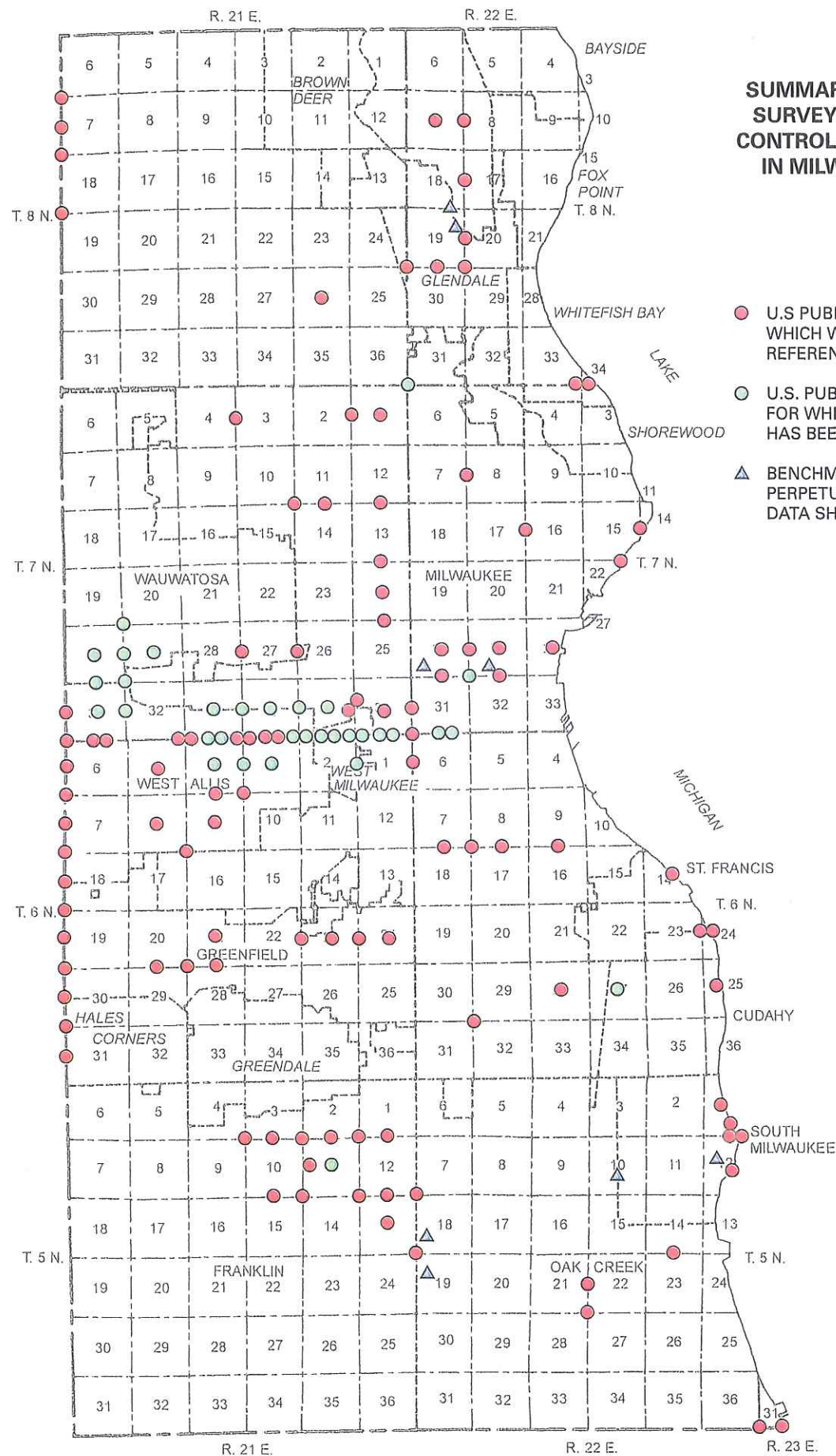
DATE: January 14, 2003

SUBJECT: MILWAUKEE COUNTY SURVEYOR ACTIVITIES - 2002

This memorandum is intended to provide the MCAMLIS Steering Committee with a report on the work of the Milwaukee County Surveyor in calendar 2002. While the office and duties and functions of the County Surveyor are prescribed by Section 59.45 of the *Wisconsin Statutes*, in Milwaukee County the necessary work, pursuant to the direction of the County Board, is funded by document recording fees retained by the County pursuant to Section 59.43(2) of the *Wisconsin Statutes*. Since the MCAMLIS Steering Committee is charged by contract between Milwaukee County and the public and private utilities operating within the County with administering these retained recording fees, a report to the Committee on the activities of the County Surveyor is in order.

Within Milwaukee County, the U.S. Public Land Survey System has been combined with the State Plane Coordinate system and the National Geodetic Vertical Control System to provide the high order horizontal and vertical control survey network required for the preparation and maintenance of the MCAMLIS large-scale topographic and cadastral maps. Therefore, the work of the Milwaukee County Surveyor entails not only the maintenance of the U.S. Public Land Survey System as such, but also the maintenance of the MCAMLIS horizontal and vertical control survey network. As such, the work requires expertise in geodetic as well as plane surveying and in the legal aspects of property boundary determination.

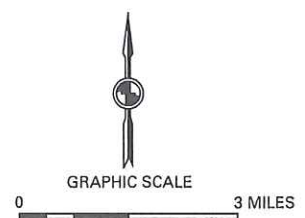
Attached hereto as Exhibit A is a map of Milwaukee County on which are shown the location of all of the corners of the U.S. Public Land Survey System for which various types of perpetuation activities were undertaken during the year. These activities involved the replacement of section, quarter section, witness and meander corners which were reported as damaged, disturbed or destroyed by construction, or other activities or actions. The work involved the setting of new monuments, and, as necessary, the replacement of attendant witness marks and benchmarks. New records of U.S. Public Land Survey control station records—dossier sheets—were prepared for each corner concerned. A copy of a typical dossier sheet is also attached as Exhibit B. As indicated on Exhibit A, a total of 151 U.S. Public Land Survey corners were involved in the perpetuation activity. In some cases, the perpetuation activity resulted in the determination of revised State Plane coordinate values for the corners and revised elevations for both the corners and the attendant benchmarks. In such cases, new control survey summary diagrams were prepared. A typical diagram is attached as Exhibit C.



# Exhibit A

## SUMMARY OF U.S. PUBLIC LAND SURVEY SYSTEM CORNER AND CONTROL SURVEY PERPETUATION IN MILWAUKEE COUNTY: 2002

- U.S. PUBLIC LAND SURVEY CORNERS WHICH WERE REMONUMENTED AND/OR REFERENCED IN 2002 (110)
- U.S. PUBLIC LAND SURVEY CORNERS FOR WHICH CONTROL SURVEY DATA HAS BEEN REVISED (33)
- △ BENCHMARKS WHICH HAVE BEEN PERPETUATED AND FOR WHICH NEW DATA SHEETS HAVE BEEN PREPARED (8)





# RECORD OF U. S. PUBLIC LAND SURVEY CONTROL STATION

VERTICAL: SECOND ORDER, CLASS II

[illegible]

Bearing: N 00-43-46 E  
To NE Cor. Sec. 21, 5-



## MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: MCAMLIS Project Staff

DATE: January 16, 2003

SUBJECT: CHANGES MADE TO THE WLIP 2002 GRANT DISTRIBUTION

### BACKGROUND

At the Steering Committee meeting held on October 8, 2002, project staff reported to the Steering Committee that as a result of the Wisconsin Land Information Program (WLIP) 2002 grant distributions, Milwaukee County would receive the amount of \$99,248 in the contribution-based grant award category. Project staff were directed by Steering Committee action to apply for the grant in this amount that would be used in partial support of additional parcel map transformation work in the City of Milwaukee.

On January 3, 2003, project staff were notified that the guidelines for the WLIP 2002 grant distributions had been revised as a result of action taken by the Wisconsin Land Information Board (WLIB). Essentially, these changes were the result of the WLIB's desire to allocate funds collected during State fiscal year 2003 prior to the "sunset" of the WLIB and WLIP grants-in-aid program on September 1, 2003. As a result of the changes in the guidelines, the original grant allocation of \$99,248 has been increased to \$200,368, in the contribution-based award category.

### RECOMMENDATION

Current WLIP guidelines do not allow for a single grant award to exceed \$100,000. In order to take full advantage of the amount available, project staff is recommending that two additional grant applications be filed for this \$200,368 contribution-based award. Staff is further proposing that these applications be used in continuing support of the cadastral map transformation projects in the City of Milwaukee.

It should be noted in this regard that this recommendation is consistent with the recommendations set forth in the strategic assessment memorandum also reviewed and approved by the Steering Committee at the October 8<sup>th</sup> meeting. In order to cause minimal disruption to the budget set forth in the strategic assessment memorandum, those areas referred to as the Phase 8 and Phase 9 project areas in the strategic assessment memorandum transformation program will be divided into three smaller areas, each of which will be about two-thirds the size of an individual phase area. In other words, the sum of the Phase 8 and Phase 9 project areas would be divided into three project areas for the purpose of submitting the grant applications. These project areas are delineated as Project Area 1, Project Area 2, and Project Area 3 on the map attached hereto as Exhibit A.

\* \* \*



**PROPOSED PROJECT AREAS  
FOR USE OF WLIP 2002  
CONTRIBUTION-BASED  
GRANT AWARD**



A horizontal scale bar with a black outline. It is divided into three equal segments by two vertical tick marks. Below the bar, the text "0" is at the left end and "3 MILES" is at the right end.

**EXECUTED LICENSE AGREEMENTS**

Number of Executed Agreements		Licensee	Effective Date
Since 1995	For 2003	2003	
90.	1.	North Shore Fire Equipment	01/13/03

#58437 v1 - MCAMLIS-EXECUTED LIC. AGREEMNTS



## EXECUTED LICENSE AGREEMENTS

Number of Executed Agreements		Licensee	Effective Date
Since 1995	For 2002	2002	
70.	1.	Urban Ecology Center, Inc.	01/28/02
71.	2.	PBS & J	02/19/02
72.	3.	Schlitz Audubon Nature Center	03/18/02
73.	4.	URS Corporation	05/10/02
74.	5.	Architects/Planners	05/22/02
75.	6.	STS Consultants, Ltd.	07/19/02
76.	7.	HNTB Corporation	07/26/02
77.	8.	Farr Associates, Inc.	08/06/02
78.	9.	Welch Hanson Associates	08/23/02
79.	10.	Walker Parking Consultants, Inc.	08/27/02
80.	11.	Central City Construction, Inc.	10/03/02
81.	12.	R. A. Smith & Associates	10/08/02
82.	13.	University of Wisconsin-Madison Department of Landscape Architecture	10/15/02
83.	14.	HDR, Inc.	10/17/02
84.	15.	Hey and Associates, Inc.	10/22/02
85.	16.	McClintock Architects, Inc.	12/11/02
86.	17.	Rowan Williams Davies & Irwin, Inc.	12/11/02
87.	18.	Harley-Davidson Motor Company Facilities Planning Department	12/12/02
88.	19.	Fantasia Design Services	12/12/02
89.	20.	Short Elliott Hendrikson, Inc.	12/18/02

	1990 Actual	1991 Actual	1992 Actual	1993 Actual	1994 Actual	1995 Actual	1996 Actual	1997 Actual	1998 Actual	1999 Actual	2000 Actual	2001 Actual	12/31/2002 Actual	TOTAL
Beginning Period Reserve-January 1	0	283,340	495,922	573,049	295,130	1,060,413	1,310,646	1,274,859	1,082,318	1,125,752	1,108,688	564,460	183,752	183,752
Mid-Year Reserve Changes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Current Period Reserve	0	283,340	495,922	573,049	295,130	1,060,413	1,310,646	1,274,859	1,082,318	1,125,752	1,108,688	564,460	183,752	183,752
Recording Fees (\$4.00 Portion)	101,886	324,983	612,592	676,093	647,355	503,342	574,328	644,508	769,820	773,078	609,683	743,977	902,060	7,883,705
Recording Fees (\$1.00 Portion)	0	0	0	150,000	200,000	165,000	138,500	55,300	139,226	152,270	103,895	325,997	197,979	1,628,167
State Grants	312,000	312,000	312,000	312,000	312,000	0	0	0	0	0	0	0	0	1,560,000
1 Private Utility Contributions	0	0	0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	170,000	0	0	520,000
2 MMSD Contribution	413,886	636,983	924,592	1,188,093	1,209,355	718,342	762,828	749,808	959,046	975,348	883,578	1,142,942	1,326,630	11,891,431
Annual Revenue	413,886	920,323	1,420,514	1,761,142	1,504,485	1,778,755	2,073,474	2,024,667	2,041,364	2,101,100	1,992,266	1,707,402	1,510,382	12,075,183
TOTAL FUNDS AVAILABLE	413,886	920,323	1,420,514	1,761,142	1,504,485	1,778,755	2,073,474	2,024,667	2,041,364	2,101,100	1,992,266	1,707,402	1,510,382	12,075,183
Additional Encumbrance	100,000	22,075	534,849	272,943	-900,864	112,067	308,902	367,776	361,580	386,754	586,545	737,559	507,569	3,397,755
Legal Fees	0	350	600	0	0	0	0	0	0	0	0	0	0	950
Systems Consulting (UGC)	0	128,638	0	0	0	0	0	0	0	0	0	0	0	128,638
USPLS Remuneration	0	41,260	0	0	0	0	0	0	0	0	0	0	0	41,260
Horizontal/Vertical Control Surveys	0	144,443	0	0	0	0	0	0	0	0	0	0	0	144,443
Aerial Photos/Mapping	21,555	17,925	292,060	1,178,794	1,340,370	356,953	490,821	576,268	556,108	608,450	842,594	787,620	1,010,208	8,079,725
Project Facilitator	8,991	73,567	21,650	14,995	0	0	0	0	0	0	0	0	0	119,203
Conference	0	59	1,046	319	0	0	528	0	0	0	0	0	0	1,953
Project Conversion Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEWRPC Staff and Training	0	0	0	0	6,291	797	0	0	0	0	0	0	0	0
Computer Hardware/Software	0	0	0	0	0	0	0	0	0	0	0	0	0	7,088
ROD Materials Copied	0	0	0	0	0	0	26	0	0	0	0	0	0	26
Computer Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Computer/Office Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent and Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Database Maintenance and Updates	40	554	13	0	0	0	3	5	0	0	343	0	295	1,252
Contractual Crosscharges	0	-4,470	-2,752	-1,040	-1,724	-1,708	-1,664	-1,700	-2,116	-2,792	-1,676	-1,529	-1,925	-25,096
Charges Paid By Other Departments	0	0	0	0	0	0	0	0	40	0	0	0	0	40
Miscellaneous	30,586	402,326	312,616	1,193,069	1,344,936	356,042	489,713	574,573	554,032	605,658	841,261	786,091	1,008,578	8,499,482
Annual Expenditures	130,586	424,401	847,466	1,466,012	444,072	468,109	798,615	942,349	915,612	992,412	1,427,806	1,523,650	1,516,147	11,897,237
TOTAL EXPS / ENCUMBRANCES	130,586	424,401	847,466	1,466,012	444,072	468,109	798,615	942,349	915,612	992,412	1,427,806	1,523,650	1,516,147	11,897,237
NET AVAIL FUNDS (END RESERVE)	283,300	495,922	573,049	295,130	1,060,413	1,310,646	1,274,859	1,082,318	1,125,752	1,108,688	564,460	183,752	-5,765	177,946

1. 1994 was the final year for this revenue source.

2. \$50,000 will be paid each year through 2002, and \$20,000 in 2003.



Date: January 20, 2003

To: Dr. Kurt Bauer, Chairman  
MCAMLIS Steering Committee

From: Reinhard Mehsner

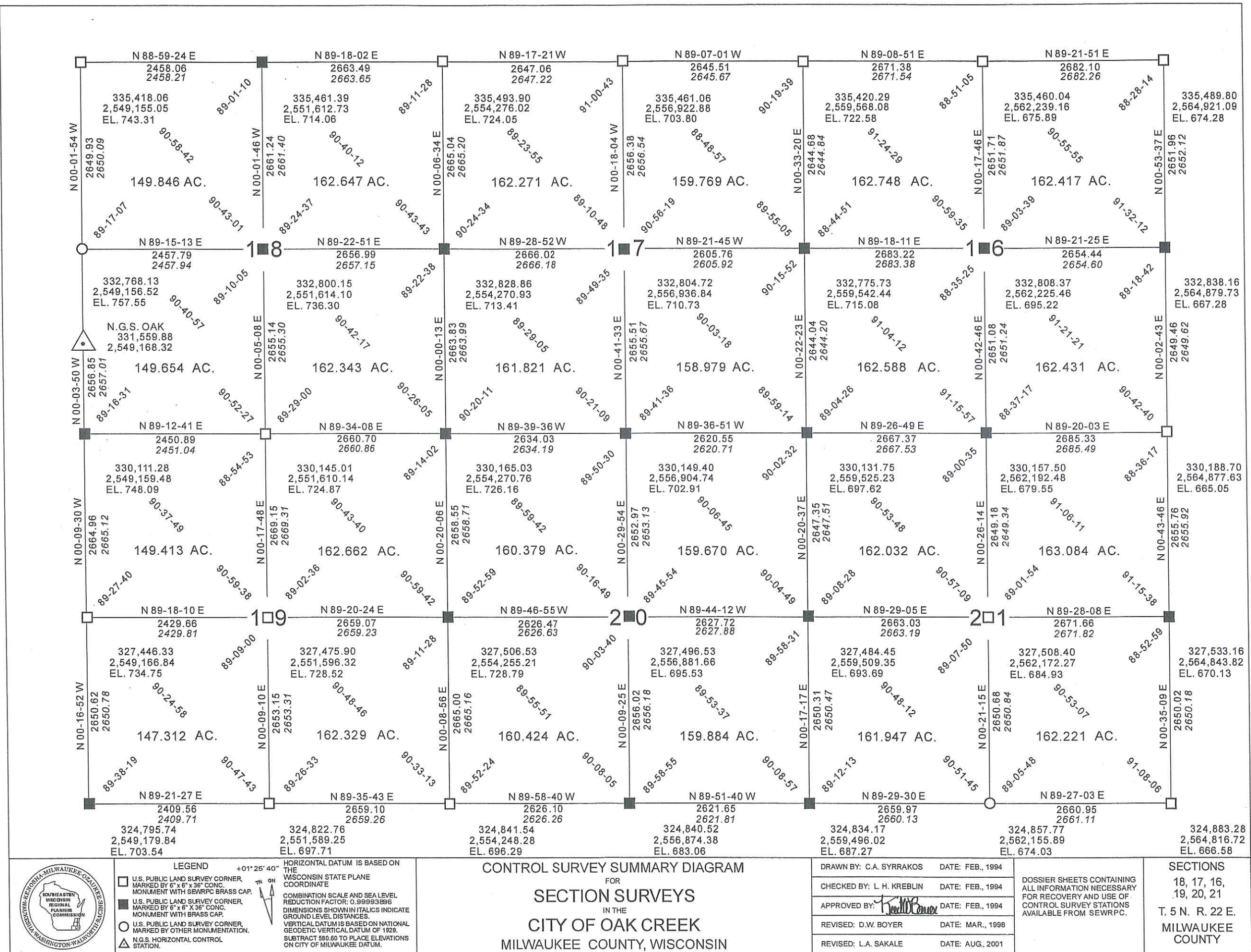
Re: Agenda, MCAMLIS Meeting, January 28, 2003

As per our discussion several days ago, I would suggest that the work effort to integrate the City of Milwaukee addresses with the current MCAMLIS database be included as an agenda item for the meeting on January 28, 2003.

Thank you.

*Reinhard Mehsner*

## Exhibit C

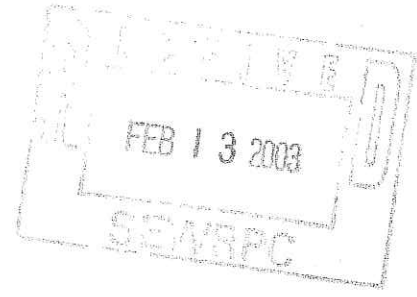






February 11, 2003

Mr. Thomas Patterson, Project Manager  
Southeastern Wisconsin Regional Planning Commission  
916 N. East Ave, P.O. Box 1607  
Waukesha, WI 53187-1607



RE: MCAMLIS

Dear Mr. Patterson:

Please be advised that the nominating committee of one – myself – after holding a number of meetings and giving extensive thought has developed a list of candidates for the MCAMLIS Steering Committee as follows:

Chairperson – Dr. Kurt W. Bauer

Vice-Chairperson – Mr. John LaFave

Please submit the above names at the April 8, 2003 Steering Committee Meeting. Both candidates have agreed to serve for the one year term.

Yours very truly,

John M. Bennett, P.E.  
City Engineer

JMB/db

C: Dr. Kurt W. Bauer  
John LaFave

**MCAMLIS  
LAND AND UTILITY INFORMATION  
SYSTEM INTERNET PROTOTYPE  
Report No. 4**

**Prepared by: Ruekert & Mielke, Inc.  
For: Milwaukee County Automated  
Mapping and Land Information  
System (MCAMLIS) Steering Committee**

**Approved by the MCAMLIS Steering Committee  
On \_\_\_\_\_, 2003**



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**MCCAMLIS  
LAND AND UTILITY INFORMATION SYSTEM  
INTERNET PROTOTYPE  
REPORT NO. 4  
"EXECUTIVE SUMMARY"**

**INTRODUCTION**

This is the final report setting forth the findings and recommendations of a pilot study of the feasibility of implementing an Internet-based land and utility information system under the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) program. This report completes the project outlined in the prospectus approved by the MCAMLIS Steering Committee at its meeting held on August 29, 2000.

As proposed and outlined in the Prospectus, this Report will do the following:

1. Document the need and potential benefits for establishing a process to easily access and exchange current land and utility information;
2. Specify the scope and content of the work to be undertaken;
3. Recommend the most cost-effective method for establishing, organizing, and accomplishing the required work; and
4. Provide sufficient cost data to permit the development of an estimated budget and initiate a prototype of the desired system.

More specifically, this report is also intended to provide information that will permit the MCAMLIS Steering Committee to determine the best means for:

5. Providing ready Internet-based access to the MCAMLIS database;
6. Exchanging and viewing utility information;
7. Providing timely and cost effective distribution of the MCAMLIS land base maintenance activities;
8. Providing transactional changes to the MCAMLIS parcel-based land information system; and
9. Providing for the spatial merging or layering of municipal and utility infrastructure data.

All of the efforts associated with this project were conducted with interaction and input from the Technical Advisory Committee (TAC). A list of the TAC members is provided in Appendix 1. The recommendations provided in this report are based on the research, development and installation of the Internet prototype web application and feedback provided by the TAC.

### 1. Document The Need And Potential Benefits For Establishing A Process To Easily Access And Exchange Current Land And Utility Information.

No evidence was found in the study that a compelling need exists to structure, on an areawide basis, an integrated set of traditional MCAMLIS land base data with public and private utility system data. While individual units of government may desire to achieve such integration, that objective can best be achieved on a case-by-case basis.

### 2. Specify The Scope And Content Of The Work To Be Undertaken.

Although a compelling need was not found to develop an integrated land base and utility system database, the following are considerations that should be addressed if such a system was to be developed in the future:

#### Application Software

Based on the prevalent use of ESRI software by most of the local municipalities, and the fact that the Internet prototype web application was developed with ESRI ArcIMS and met the needs expressed by the Technical Advisory Committee, the Land Information web application should continue to be developed using ESRI ArcIMS. Since ESRI has released a version upgrade (4.0) since the initial development of the web application, the web site should be upgraded. Ruekert / Mielke has completed other web application upgrades from ArcIMS version 3.1 and the cost is estimated to range from \$1,500 to \$2,000.

#### Database Updates

Since the Prototype Internet Web Application was a pilot project and included only a sampling of the available digital files, final implementation will require updating the database tables with a record for the available digital files. Assuming local municipalities can provide a single digital file for the sanitary sewer, storm sewer, and water distribution facilities, the cost to update the web application is estimated to be between \$2,500 and \$3,500.

### 3. Recommend The Most Cost-Effective Method For Establishing, Organizing, And Accomplishing The Required Work.

#### Hosting Services

The data and web application could be hosted either by a web hosting service provider or by Milwaukee County. Physical location of the site is not critical. The study recommends that the hardware and software to be purchased by MCAMLIS and the development work is already complete. Any updates or modifications required would be extra cost in addition to the cost of hosting the application. If the data and web application were to be hosted initially by a web hosting service provider, and should Milwaukee County decide to assume responsibility for the maintenance and hosting in the future, the web application could be simply removed from the web hosting service provider. The cost to remove and re-install the web application is estimated at approximately \$1,500.



### Community Access

Since the Land Information System web application can be accessed via an Internet browser, the requirements for local communities to access, search and download the available digital data would be minimal. The following is a list of the requirements:

1. Internet Connection - 768 kbps (minimum)
2. Microsoft Internet Explorer 5.x or later or Netscape Communicator 4.75 or later
3. GIS software capable of reading ESRI ArcInfo coverages, geodatabases or shape files

Of the municipalities that responded to the questionnaire survey undertaken as a part of the study, the Village of Hales Corners was the only municipality that did not have Internet access. However, the Village does have plans to obtain Internet access in the near future.

### MCAMLIS License Agreement

It is recommended that use of the MCAMLIS copyright and attendant license agreement procedures be discontinued.

### 4. Provide Sufficient Cost Data To Permit The Development Of An Estimated Budget And Initiate A Prototype Of The Desired System.

In the event a web application is developed, the following tasks should be completed as part of a full-scale implementation effort of the Land Information System web application:

Task		Cost Estimate
1.	Convert the digital U.S.P.L.S.S. one-quarter section cadastral map files to larger municipal tiled areas.	\$ 40,000 - \$ 45,000
2.	Convert the digital U.S.P.L.S.S. one-quarter section topographic map files to larger municipal tiled areas.	\$ 35,000 - \$ 40,000
3.	Develop an automated maintenance conversion tool for the creation of municipal tiled areas.	\$ 3,000 - \$ 5,000
4.	Incorporate a geodatabase design for the maintenance of the digital cadastral maps	\$ 6,000 - \$ 8,000
5.	Incorporate a transactional update process	\$ 20,000 - \$ 30,000
6.	Update existing ArcIMS 3.1 web application to ArcIMS 4.0	\$ 1,500 - \$ 2,000
<b>Total cost estimate for all recommendations:</b>		<b>\$105,000 - \$130,000</b>

Since most survey respondents indicated an interest in obtaining seamless cadastral and topographic maps for their communities, Items 1 and 2 should be completed as a separate project.

### Local Web Hosting Service

The following is a list of required services and estimated costs for web hosting services:

Required Services	Cost
Data Storage and Web Hosting: (includes hardware, software licenses, yearly software maintenance fees)	\$600 - \$900 per month
Data Maintenance: (includes appending or replacing available data sets)	\$200 - \$400 per update
Additional Web Page or ArcIMS Development	\$40 - \$85 per hour
<b>Total Monthly Data Storage and Web Hosting Fees</b>	<b>\$800 - \$1,300</b>

Additional expenses for web page or ArcIMS development, software maintenance and upgrades, or data conversion may be required in the event MCAMLIS desires to modify the existing web application.

#### 5. Providing Easy Access to the MCAMLIS Data Base.

Since its inception, the MCAMLIS land base data has been developed, stored, and disseminated on the basis of U. S. Public Land Survey one-quarter sections. In order to facilitate the use of this data by the constituent municipalities and by Milwaukee County, it is proposed that the MCAMLIS land base data be stored and disseminated in a seamless fashion on the basis of "tiles" to be defined for each municipality and for Milwaukee County. It is feasible to create a seamless system of mapping that recognizes the overlapping nature of each community's geographic area of concern and interest. It is recommended that the MCAMLIS Steering Committee authorize the project management staff to develop a project that would address the seamless mapping needs and present that project to the Committee for its consideration.

#### 6. Exchanging And Viewing Utility Information

Growing security-related concerns relative to the use and dissemination of utility system data render any areawide, web-based distribution of such data infeasible. Rather, both public and private utilities now desire to strictly license the use and distribution of utility system data with appropriate security safeguards. Moreover, efficiency and effectiveness as well as security concerns tend to favor making utility system data available on an "as needed," project-by-project basis. Consequently, each unit of government will need to deal individually with each utility provider to ascertain the conditions under which utility system data would be made available for their use. It is expected that licensing procedures will govern the conditions of such use. Given this and the previous finding, there is no direct role for MCAMLIS with regard to the matter of full integration of land base and utility system data.

#### 7. Providing Timely And Cost Effective Distribution Of Land Maintenance Activities

The MCAMLIS land base data consists of three components: topographic mapping, cadastral mapping, and street addressing. Presently, updates to this information are transmitted to Milwaukee County, its constituent municipalities, and licensed users on an on-request basis via the medium of compact disks. The internet prototype study demonstrated that it would be feasible to use internet technology to distribute such information. It is recommended, however, that the delivery of updated information through web technology be made the responsibility of the County and not MCAMLIS. Moreover, any determination to deliver data using web



technology should await further decisions regarding the role which Milwaukee County is to assume in terms of MCAMLIS program administration.

#### 8. Providing Transactional Changes To The Land Information System.

One of the enhancements to the MCAMLIS cadastral mapping data program involves the identification to the constituent municipalities of updates to cadastral maps. By modifying the cadastral mapping updating protocol now in place, it is feasible to deliver to each municipality in Milwaukee County, not only an updated cadastral map for that community's "tile," but also to embed in the database information that allows the end user to identify all additions, deletions, and modifications to existing parcel polygons. It is recommended that the MCAMLIS Steering Committee authorize the project management staff to develop a follow-up project that would provide the Milwaukee County Register of Deeds with the software and procedures required to systemically accommodate the need for transactional update information with respect to cadastral maps for the municipalities and MCAMLIS program participants within the County.

Under this recommendation, MCAMLIS would maintain current the MCAMLIS topographic and cadastral maps for the entire County, including the area within the City of Milwaukee. In addition, the City of Milwaukee will maintain a duplicate set of cadastral maps prepared to City specifications.

#### 9. Providing For The Spatial Merging Or Layering Of Municipal And Utility Infrastructure.

As noted above, We Energies and the City of Milwaukee have, for security reasons, already indicated a concern regarding the deployment of digital utility information over the Internet. Although some members of the Technical Advisory Committee indicated a desire to obtain as much of the available digital utility information through the internet prototype web application, the lack of a standard data format would seriously impact the amount of time spent converting and merging the available utility infrastructure files into a common base map. Additionally, since We Energies indicated that they may provide complete data sets through requests made directly by interested parties, it seems impractical to include partial datasets from We Energies, or any other municipality or agency, in the web application that would otherwise provide full datasets through a direct request.

Instead, potential users, after obtaining the available utility infrastructure files directly from the data provider, would be responsible for merging the digital files into their own systems. Although this increases the amount of time and effort for the local users, the probability that a universal, standard data format could be developed and agreed upon by all local users is highly unlikely. Hence, the merging of municipal and utility infrastructure information is not recommended.

### CONCLUSION

The study has successfully demonstrated the ability to develop an Internet web application for the collection and distribution of digital map products. The study also identified numerous tasks that should be completed in order to facilitate and simplify the maintenance and updated process associated with the digital cadastral maps. The next step requires the approval of the MCAMLIS

Steering Committee of these recommendations and the coordination and implementation of the necessary efforts.

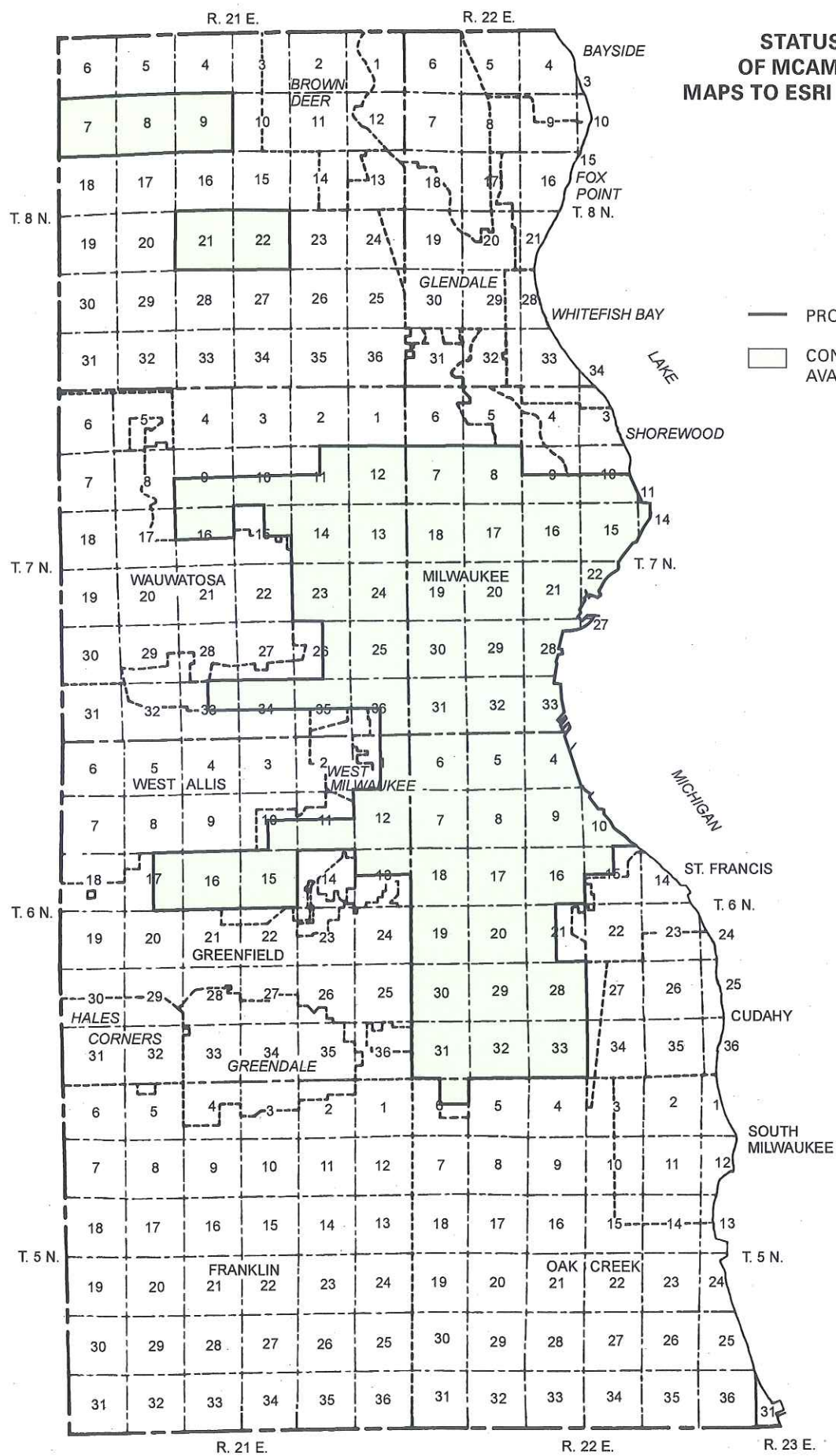


**APPENDIX 1:**  
**TECHNICAL ADVISORY COMMITTEE MEMBERS**

<b>ORGANIZATION</b>	<b>MEMBER</b>
Ameritech Services, Inc.....	Ricky Wicklund, Telecommunications Specialist
Village of Brown Deer .....	James Buske, GIS Technician
City of Milwaukee .....	Nancy Olson, Manager, GIS, City of Milwaukee
Milwaukee County .....	Kevin Bruhn, Infrastructure Coordinator
Milwaukee County .....	Kevin White, GIS Supervisor
Milwaukee County .....	Kathy Bach, GIS Technician
Milwaukee Metropolitan Sewerage District .....	David Misun, Asset Evaluation Supervisor
Southeastern Wisconsin..... Regional Planning Commission	Thomas Patterson, MCAMLIS Project Manager
City of West Allis.....	Patrick Walker, GIS Coordinator
Wisconsin Gas .....	Ed Hohl, Information Consultant
Wisconsin Electric.....	Tim Marquardt, Electric Mapping Supervisor
Wisconsin Electric.....	William Shaw, GIS Manager

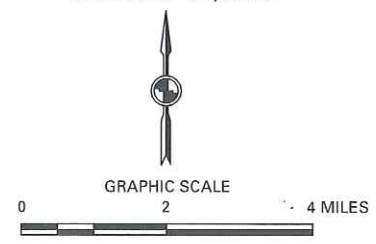
V A

# STATUS OF THE CONVERSION OF MCAMLIS DIGITAL CADASTRAL MAPS TO ESRI ARCINFO COVERAGE FORMAT



- PROJECT AREA BOUNDARY
- CONVERTED AND AVAILABLE FOR DISTRIBUTION

FEBRUARY 24, 2003



Source: MCAMLIS Project Manager.



U B

## STATUS OF MCAMLIS MAPPING PROJECTS BEING CARRIED OUT BY CITY OF MILWAUKEE STAFF

The City of Milwaukee recompilation project is comprised of 40 U.S. Public Land Survey one-quarter section-based maps as delineated on the accompanying status map. These cadastral maps are being compiled to fit the MCAMLIS survey control system utilizing original land records and associated descriptions and documents. This work has been carried out by the staff of the City of Milwaukee, Infrastructure Service Division, Central Drafting and Records Office. As of November 30, 2001, all 40 of the quarter-section maps have been completed by the City of Milwaukee staff and have been accepted by the SEWRPC staff as of this date as being in compliance with those specifications.

The City of Milwaukee cadastral map transformation project (Phase 1) consists of 93 U.S. Public Land Survey one-quarter-section-based existing City of Milwaukee maps that are being refit to the MCAMLIS survey control system utilizing computer algorithms. These 93 one-quarter section maps are delineated on an accompanying status map. This work is being carried out by the staff of the City of Milwaukee, Department of Administration, Information and Technology Management Division. As of March 21, 2003, City of Milwaukee Geographic Information Systems staff have completed the transformation all 93 of these map sheets, all of which have been sent to SEWRPC staff for their review to determine compliance with MCAMLIS specifications and standards. Of the 93 map sheets submitted, 93 have been accepted by SEWRPC staff as meeting the relevant specifications. The agreement governing this project calls for work to be completed by October, 2002. This project was completed February 25, 2003.

The City of Milwaukee cadastral map transformation project (Phase 2) consists of 24 U.S. Public Land Survey one-quarter-section-based maps as delineated on an accompanying status map. All 24 of the map sheets have been accepted as being in compliance with the specifications in this project area. The agreement governing this project calls for work to be completed by June 2002. This project was completed February 14, 2002.

The City of Milwaukee cadastral map transformation project (Phase 3) also consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. All 24 map sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by June 2002. This project was completed February 14, 2002.

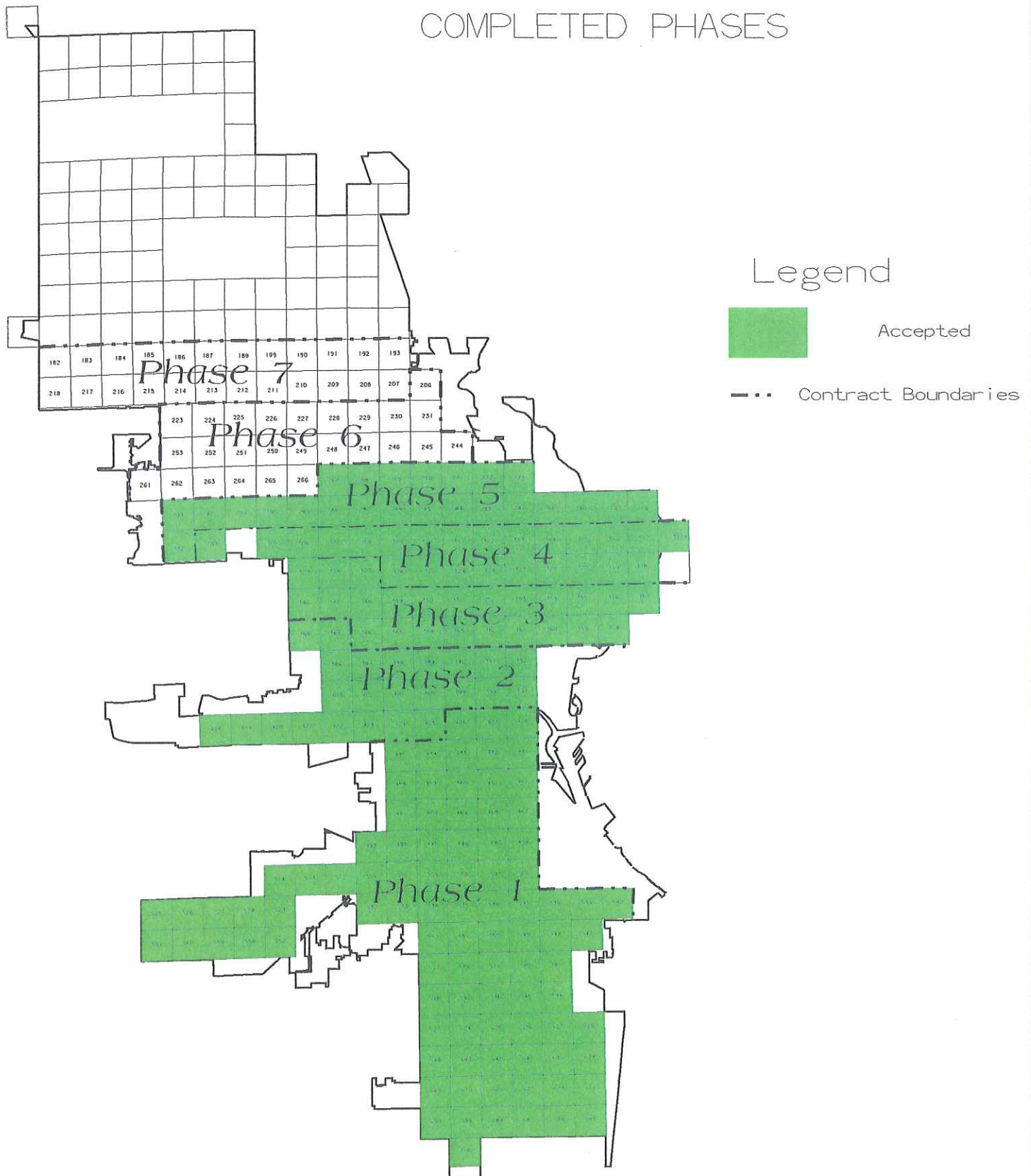
The City of Milwaukee cadastral map transformation project (Phase 4) also consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. All 24 map sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by December 2002. This project was completed February 15, 2003.

The City of Milwaukee cadastral map transformation project (Phase 5) also consists of 24 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. The agreement governing this project calls for work to be completed by December 2002. This project was completed January 3, 2003.

The City of Milwaukee cadastral map transformation project (Phase 6) consists of 26 U.S. Public Land Survey one-quarter-section-based maps again as delineated on an accompanying status map. As of March 21, 2003, 26 maps from this project area have been submitted to SEWRPC staff for review and accordingly, 20 maps sheets have been accepted as being in compliance with the specifications. The agreement governing this project calls for work to be completed by December 2003. There is currently no reason to expect that the project completion schedule will not be met.

# MCAMLIS Transformation Project Progress Map

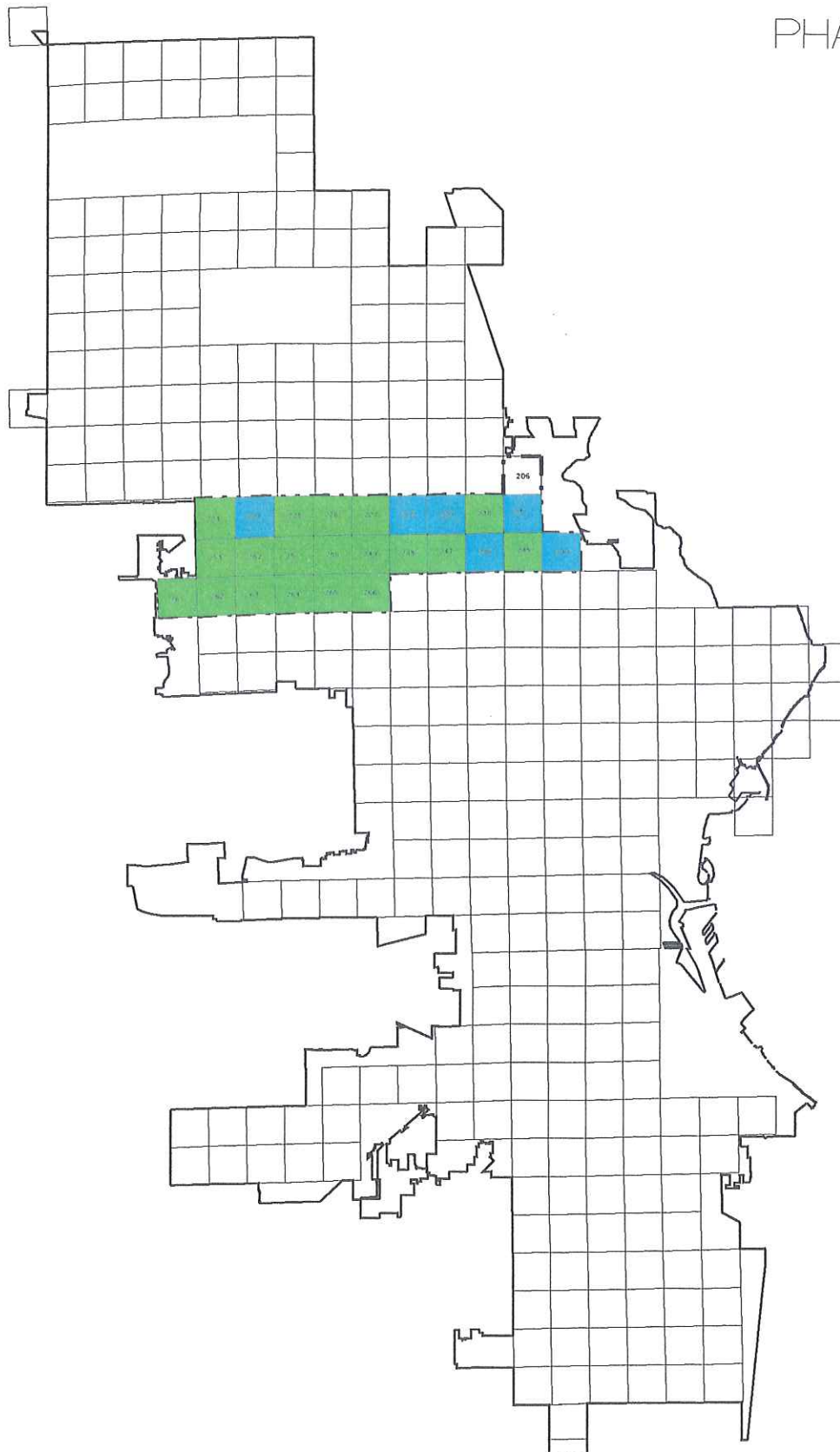
## COMPLETED PHASES





# MCAMLIS Transformation Project Progress Map

## PHASE 6



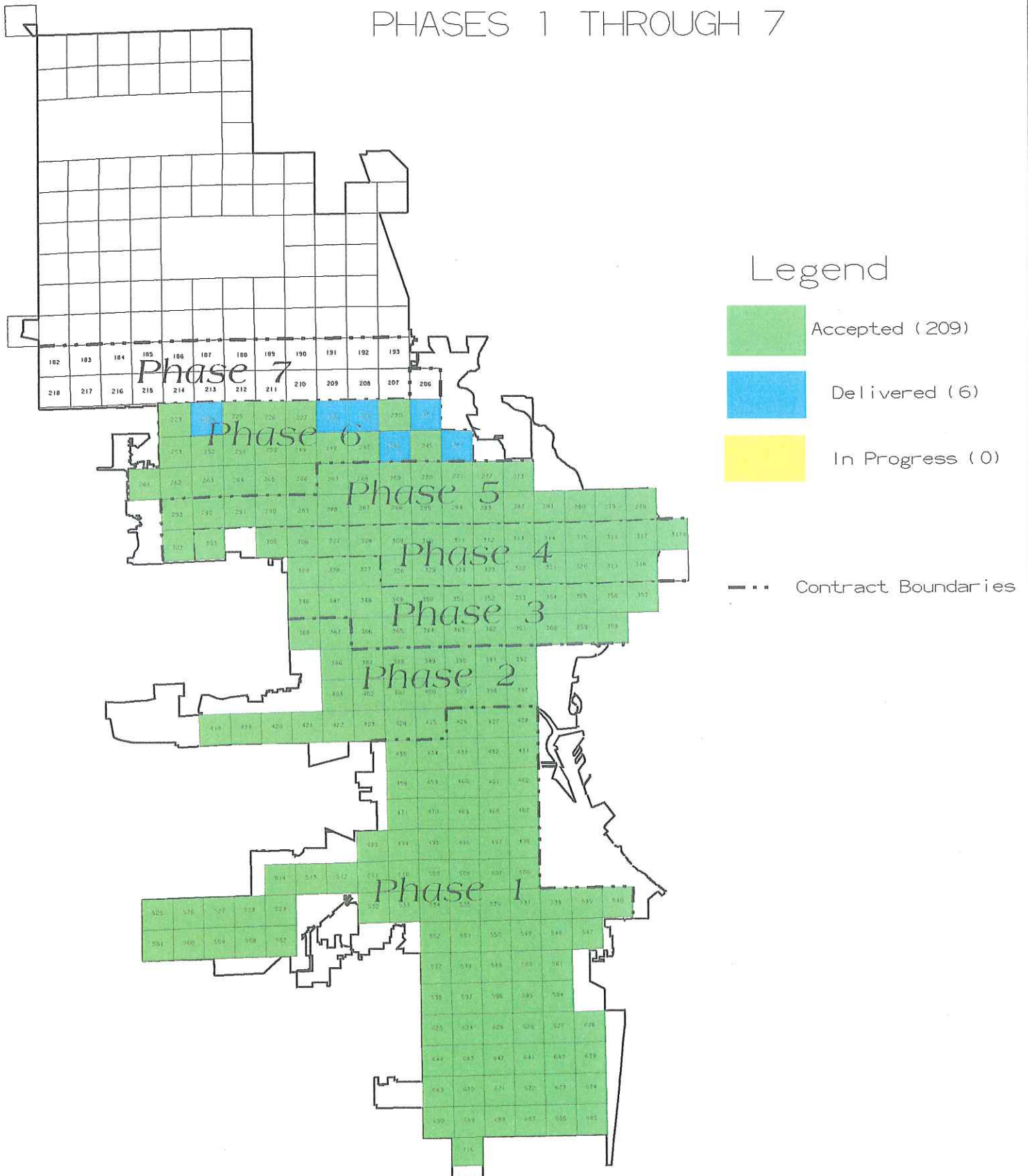
### Legend

- Accepted ( 19)
- Delivered ( 6)
- In Progress ( 0)

--- Contract dated 03/01  
24 quarter sections  
Boundary

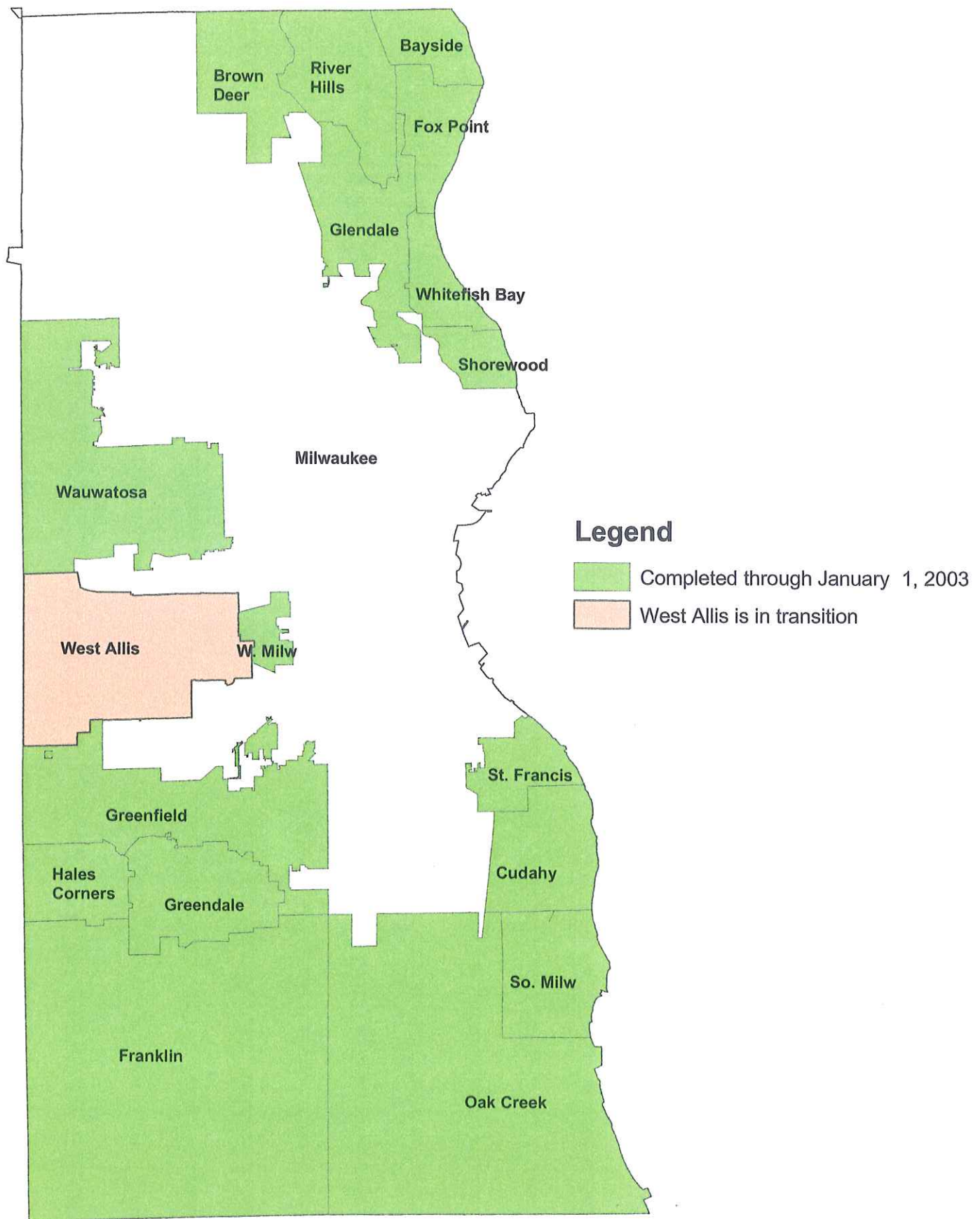
# MCAMLIS Transformation Project Progress Map

## PHASES 1 THROUGH 7

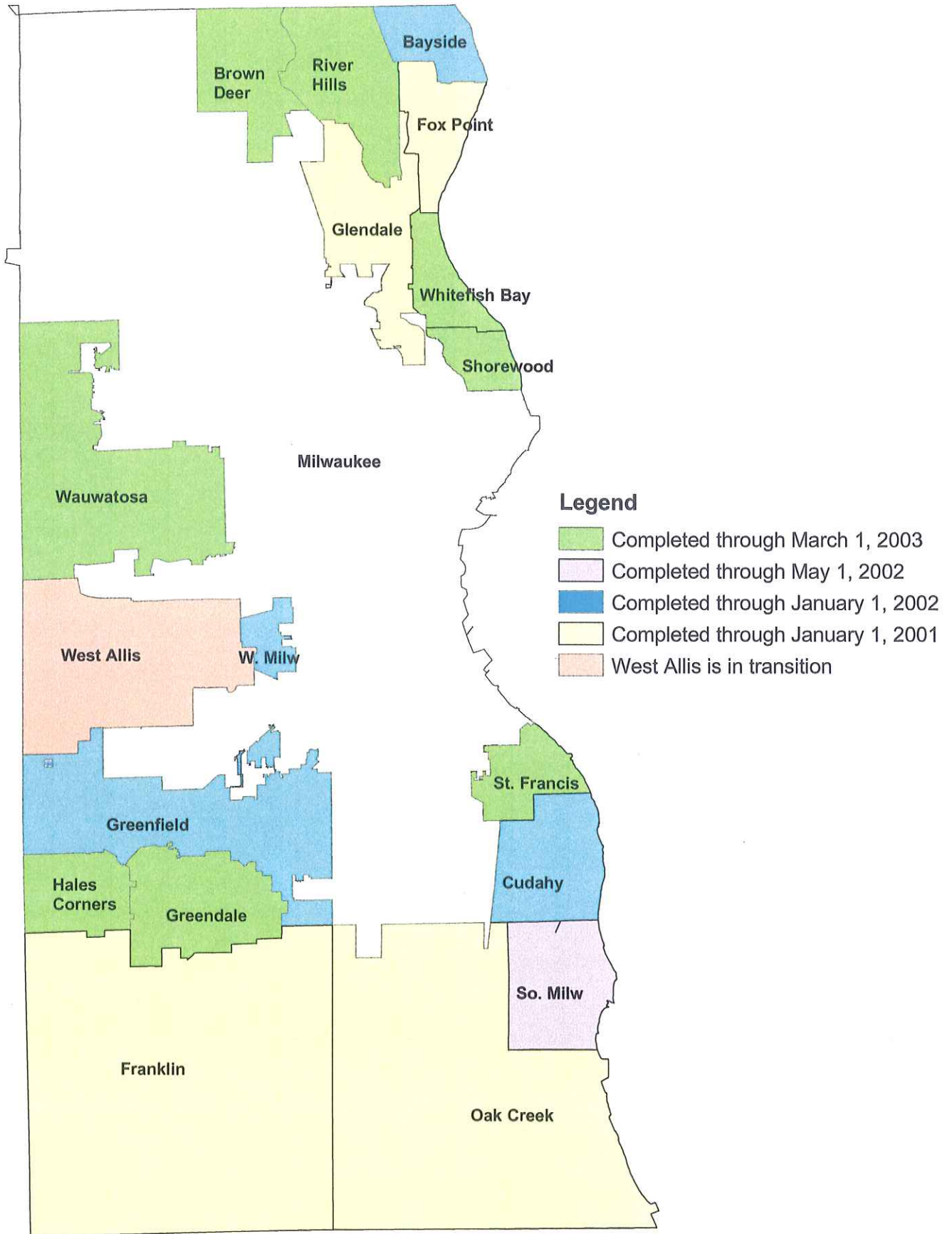




# Milwaukee County Cadastral Status as of March 20, 2003



# Milwaukee County Address Status as of March 20, 2003





**WISCONSIN LAND INFORMATION PROGRAM**

**YEAR 2002 ANNUAL SURVEY**

**MILWAUKEE COUNTY**

Milwaukee county

## Section 1: Organizational Information

1. Who is the Land Information Officer in your county?

John La Fave

2. What is the telephone number of the LIO?

414-278-4021

3. What is the fax number of the LIO?

414-223-1257

4. What is the email of the LIO?

regdeeds@milwcnty.com

5. To whom does the LIO report?

Register of Deeds

6. Does your Land Information Office have a website?

☒ Yes

☐ No

7. If yes, what is the URL (website address)?

8. Does the Land Information Officer have other duties?

☒ Yes

☐ No

If yes, identify the percent of the job that is LIO related. 10 %



9. Including the land Information Officer, indicate the total number of full time equivalent staff positions allocated to Land Information Office activities.

3

10. Please provide: Name, Title, and Phone Number for each person who completed the survey

Name	Title	Phone
John La Fave	Register of Deeds	414-278-4021
Kurt W. Bauer	Milwaukee County Surveyor	262-547-6721
Kevin White	DPW GIS Supervisor	414-278-2176
Thomas Lewandowski	DOA Budget Analyst	414-278-5330
Thomas D. Patterson	MCAMLIS Project Manager	262-547-6721

11. Comments:

John La Fave was elected Milwaukee County Register of Deeds on November 5, 2002. His term of office began January 3, 2003 and includes serving in the position of Land Information Officer.

Milwaukee county

**Section 2: GIS Software****1. Which of the following GIS software programs are used by your county?**

Please check all that apply

<input checked="" type="checkbox"/>	AutoCad by Autodesk
<input checked="" type="checkbox"/>	AutoCad Map by Autodesk
<input checked="" type="checkbox"/>	Microstation by Bentley Systems
<input checked="" type="checkbox"/>	ArcInfo by ESRI
<input checked="" type="checkbox"/>	ArcView by ESRI
<input checked="" type="checkbox"/>	ArcCad by ESRI
<input type="checkbox"/>	Atlas GIS by ESRI
<input checked="" type="checkbox"/>	Map Objects IMS by ESRI
<input checked="" type="checkbox"/>	ARC IMS by ESRI
<input checked="" type="checkbox"/>	ARC SDE by ESRI
<input type="checkbox"/>	GenMap by Genasys II
<input type="checkbox"/>	FRAMME by Intergraph
<input type="checkbox"/>	MGE by Intergraph
<input type="checkbox"/>	GeoMedia by Intergraph
<input type="checkbox"/>	GeoMedia Professional by Intergraph
<input type="checkbox"/>	MapInfo
<input type="checkbox"/>	Smallworld
<input checked="" type="checkbox"/>	Other <i>please specify</i> GGM-Printrak



2. Which of the following database software systems are used by for your land records?

check all that apply

<input checked="" type="checkbox"/>	Oracle
<input checked="" type="checkbox"/>	Microsoft Access
<input checked="" type="checkbox"/>	Microsoft SQL
<input type="checkbox"/>	Informix
<input type="checkbox"/>	AS/400
<input type="checkbox"/>	FoxPro
<input type="checkbox"/>	Other please specify <input type="text"/>

3. Please indicate the primary vendor of GIS mapping software possessed by various county departments

County Office	Package 1	Package 2	Package 3	Other
Agricultural/ Extension	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	<input type="text"/>
Emergency Government	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	<input type="text"/>
Forestry	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	<input type="text"/>
Highways/ Transportation	ArcInfo <input type="text"/>	AutoCad <input type="text"/>	Microstation <input type="text"/>	Paver, Cartograph <input type="text"/>
Information Services/	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	--Specify-- <input type="text"/>	<input type="text"/>

Data Processing					
Land Conservation	--Specify--	--Specify--	--Specify--	--Specify--	
Land Information Office	ArcInfo	ArcView	ArcCad		
Parks and Recreation	ArcInfo	AutoCad	--Specify--		
Planning	--Specify--	--Specify--	--Specify--		
Public Health	--Specify--	--Specify--	--Specify--		
Public Works/ Infrastructure/ Solid Waste	ArcInfo	ArcView	AutoCad		
Real Property Lister	--Specify--	--Specify--	--Specify--		
Register of Deeds	ArcInfo	ArcView	ArcCad		
Sheriff	--Specify--	--Specify--	--Specify--	GGM Printrak	
Surveyor	ArcInfo	ArcCad	Microstation	AutoCad	
Treasurer	--Specify--	--Specify--	--Specify--		
Zoning	--Specify--	--Specify--	--Specify--		



Other, please specify Transit	ArcView	AutoCad	--Specify--	
Other, please specify County Board	ArcView	--Specify--	--Specify--	

**4. Identify metadata software used.**

Please check all that apply

<input checked="" type="checkbox"/>	Arc Catalog
<input type="checkbox"/>	Spatial Metadata Management Software (SMMS)
<input checked="" type="checkbox"/>	Other please specify TKME

**5. Comments?**

Milwaukee county

**Section 3: Geodetic Control Networks**

The WLIP geographic reference frameworks foundational element includes geodetic control networks (e.g., horizontal and vertical networks), the Public Land and Survey System (section corner remonumentation and coordinates), and geographic control data (e.g., features captured on planimetric and topographic base maps, and by aerial photography and digital orthophotography).

### Horizontal Geodetic Control Networks

In the early 1990's, the Wisconsin Department of Transportation (WisDOT), together with the National Geodetic Survey (NGS), developed a High Accuracy Reference Network (HARN) to provide primary horizontal control for Wisconsin.

1. Does your county have a horizontal geodetic control network that pre-dates or is not based on the Wisconsin HARN?

☐ Yes  
☐ No

2. Has your county developed a densified horizontal control network using the Wisconsin HARN?

☐ Yes  
☐ No, but our county plans to, *Skip to Question #5*  
☐ No, and there are no plans to, *Skip to Question #5*

3. If yes, were WLIP, FGCS, and/or WisDOT guidelines followed in the densification of the HARN?

Check all that apply.

<input type="checkbox"/>	Yes, WLIP Specifications and Guidelines to Support Densification of the Wisconsin High Accuracy Reference Network (HARN) Using Global Positioning System (GPS) Technology – June 1995 were used.
<input type="checkbox"/>	Yes, Federal Geodetic Control Subcommittee guidelines were used.
<input type="checkbox"/>	



<input type="checkbox"/>	Yes, WisDOT guidelines were used.
<input type="checkbox"/>	No, none of these guidelines were used.

4. If densification of the horizontal control network has been initiated, how much densification work has been completed within your county?

	Number of stations completed in your county	Additional stations needed or planned
HARN		
Primary Stations (1 part per million)		
Secondary Stations (2 parts per million)		
Tertiary Stations (4 parts per million)		
Tertiary Stations (10 parts per million)		

5. Were the horizontal control stations for your county blue booked (i.e. conform to the Input Formats and Specifications of the National Geodetic Survey Data Base of the Federal Geodetic Control Subcommittee) and submitted to the National Geodetic Survey for inclusion in their national database?

☐ Yes  
☐ No

#### Vertical Geodetic Control Networks

6. Has your county developed a densified vertical control network based on the National Spatial Reference System?

- ☐ Yes
- ☐ No, but our county plans to
- ☐ No, and there are no plans to

**7. Comments?**

Milwaukee county

## Section 4: Coordinate Data

1. What is the primary coordinate system used by your county for digital mapping/GIS?

State Plane Coordinates - South Zone

2. What is the primary horizontal datum used by your county for digital mapping/GIS?

North American Datum of 1927 (NAD27)

3. What is the primary vertical datum used by your county for digital mapping/GIS?

National Geodetic Vertical Datum of 1929 (NGVD 29)

4. Does your county have the ability to convert non-compliant data to the coordinate



system used by your county?

- ☐ Yes, we process it internally  
☐ Yes, we contact it out  
☐ No

5. Comments?

Milwaukee county

## Section 5: Public Land Survey System

1. Does your county have an active remonumentation program?

- ☐ Yes  
☐ No  
☐ Planned

2. How many PLSS corners (section, 1/4, meander) in your county have been remonumented meeting or exceeding 1970 Wisconsin statute requirements?

1065 corners of 1065 corners total.

3. When PLSS corners in your county are being remonumented or reestablished, are coordinates developed and tied to the geodetic control network?

- ☐ Yes  
☐ No  
☐ Planned

**4. How many PLSS corners in your county have FGCC Third Order Class 1**

coordinate values?

1065

corners of

1065

corners total.

**5. Comments?**

Milwaukee county

**Section 6: Digital Base Maps**

A base map can be defined in several different ways. For the purposes of this survey, a base map consists of natural and human-made features (those that can be identified and mapped using photogrammetric or field methods) in a digital vector format (represented through points, lines, and polygons). Examples of base map features may include waterways and tree lines as representations of natural features and building outlines and street pavement edges as representations of human-made features. A list of base map features is included in Question #3. Image bases (including digital orthophotography) and digital elevation data (contours, spot elevations, digital elevation models, etc.) are addressed in later sections of this survey.

**1. Has your county created or acquired a digital base map in vector format?**☒ Yes☐ No, but my county intends to☐ No, and there are no plans to**2. Which of the following features do you include as part of your digital base map?**



Please check all that apply

Feature	Percent Complete	Plan to Complete?	Plan to Maintain or update?
<input checked="" type="checkbox"/> Building footprints	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Building Centroids	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Address points	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Surface hydrography	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Wetlands and swamps	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Street centerlines	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Center of right-of-way	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Street edge of pavement	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Railroads	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Driveways	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Parking lots	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Sidewalks	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Trees and wooded areas	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Utility poles and towers	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Fencelines	100 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Municipal and County boundaries	%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

<input type="checkbox"/>	Other Please Specify:	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Other Please Specify:	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Which of the following best represents the compilation scale of digital base mapping maintained by your county?

- ☐ 1:1200 scale (1"=100') or larger scale
- ☐ 1:1201 to 1:2400 scale (1"=200')
- ☐ 1:2401 to 1:4800 scale (1"=400')
- ☐ 1:4801 to 1:9600 scale (1"=800')
- ☐ 1:9601 to 1:12,000 scale (1"=1000')
- ☐ 1:12,001 to 1:24,000 scale (1"=2000')
- ☐ Smaller scale than 1:24000 scale (1"=2000')

4. Have cities, villages, and towns in your county developed their own digital base maps?

- ☐ Yes
- ☐ No

If yes, please list the cities.

<input type="text"/>
----------------------

5. Comments?





Milwaukee county

## Section 7: Digital Elevation Data

### Digital Elevation Data

1. Has your county created or acquired digital elevation data?

- ☒ Yes  
☐ No, but our county plans to, *Skip to Next Section*  
☐ No, and there are no plans to, *Skip to Next Section*

2. If yes for Question #1, what is the format of the digital elevation data maintained by your county?

Please check all that apply

Format of Digital Elevation Data	Contour Interval	Resolution (grid cell size)	Vertical Accuracy (+/-)	Percent Complete
Contours	2'	N/A	1'	100 %
Other Elevations (e.g. spot elevations,	N/A	N/A	0.5'	100 %

mass points, and break lines)					
Terrain Matrices (e.g. raster array, such as the USGS DEM)	N/A				%
Triangulated Irregular Network (TIN)	N/A	N/A			%
Other, Please Specify:					%

### 3. Comments?

Milwaukee county

## Section 8: Image Base Maps

### Image Bases

#### 1. Has your county created or acquired digital orthophotography?

- ☒ Yes  
☐ No, but our county plans to, Skip to Question #4



☐ No, and there are no plans to, *Skip to Question #5*

2. If yes to Question #1, how much of your county is complete?

100 %

Is it in your primary county coordinate system?

☐ Yes

☐ No

3. Does your county intend to acquire or update digital orthophotography?

☐ Yes

☐ No

If no, Please skip to Question 4

If yes, Please specify the resolution of the next update: 1'

and the year: 2005

4. Please provide information about the date, scale, and resolution of the digital orthophotography for the appropriate source(s):

Source	Date of photography	Scale of image product	Resolution of DOPs (grid cell size)	Color or Black and White
Digital Orthophoto Quarter Quadrangles by the U.S. Geological Survey			--Select Resolution--	--Specify Color--
County or County				

Consortium				--Select Resolution--	--Specify Color--
Regional Planning Commission	2000	1:2400	12 inch	Black and White	
Other Please Specify			--Select Resolution--	--Specify Color--	

5. Comments?

Milwaukee County

## Section 9: Parcels

1. What is the current number of tax parcels in your county (please include woodland tax law lands, private forest croplands, managed forest lands, county forest crop, and tax-exempt parcels)?

265000

2. Has your county created or acquired digital parcel mapping?

- ☒ Yes  
☐ No, but our county plans to  
☐ No, and there are no plans to



3. What percentage of the total parcels in your county are in digital form, including cities, villages, and towns?

100 %

4. Have cities, villages, and towns in your county developed their own digital parcel mapping?

☒ Yes

☐ No

5. For the parcels you have mapped, what percentage were based on each or any of the following methods? Note, the percentage may total more than 100 %.

Compilation Method	Percent Complete
Developed parcel boundary lines by digitizing existing paper/mylar/linen maps, but with no adjustment to a known geographic reference framework.	<input type="text"/> %
Developed parcel boundary lines by digitizing existing paper/mylar/linen maps and adjusting them to the best available PLSS coordinates	60 <input type="text"/> %
Created digital parcel boundary lines using coordinate geometry from property descriptions, but with no adjustment to a geographic reference framework.	<input type="text"/> %
Created digital parcel boundary lines using coordinate geometry from property descriptions into a geographic reference framework.	40 <input type="text"/> %
Digitized existing maps using orthophotos/aerial photography to adjust the boundaries.	<input type="text"/> %
Incorporated digital data (e.g. certified survey maps) from an outside	

source.		%
Other compilation method, Please Specify:		%

6. Digital parcel mapping for your county was:

- ☒ Completed by an outside vendor  
☐ Completed "in-house" by county staff  
☐ Combination  % by county

7. Digital parcel maps for your county are now maintained:

- ☐ Maintained by an outside vendor  
☐ Maintained "in-house" by county staff  
☐ Combination  40 % by county

8. Which of the following graphic features do you consider as part of your digital parcel mapping?

Check all that apply.

<input checked="" type="checkbox"/>	Deed/title boundaries (ownership parcels)
<input checked="" type="checkbox"/>	Parcel overlaps and gaps
<input checked="" type="checkbox"/>	Tax parcel boundaries
<input checked="" type="checkbox"/>	PLSS framework
<input checked="" type="checkbox"/>	Subdivision boundaries
<input checked="" type="checkbox"/>	Administrative/political boundaries
<input checked="" type="checkbox"/>	Road rights-of-way
<input checked="" type="checkbox"/>	Railroad rights-of-way
<input checked="" type="checkbox"/>	Easements



<input checked="" type="checkbox"/>	Meandered water bodies
<input checked="" type="checkbox"/>	All water bodies (streams, rivers, ponds, and lakes)
<input type="checkbox"/>	Building footprints
<input type="checkbox"/>	Building centroids
<input checked="" type="checkbox"/>	Text strings
<input type="checkbox"/>	Owner names
<input checked="" type="checkbox"/>	Hydrography
<input checked="" type="checkbox"/>	Bearings and distances
<input type="checkbox"/>	Other, please specify: <input type="text"/>

9. Does your county's digital parcel mapping have topology? (For the purpose of this survey, topology is defined as digital parcels structured as polygons with all lines ending at a node without under- or over-shoots.)

- ☒ Yes  
☐ No

10. Are digital parcels coded with unique parcel identification numbers?

- ☒ Yes  
☐ No

11. If yes, what standards are used for developing unique parcel identification numbers?

Check all that apply.

<input type="checkbox"/>	WLJB Parcel Identification Numbering System
<input checked="" type="checkbox"/>	Standard developed by county government
<input type="checkbox"/>	If not WLJB Standard, please describe or provide document name

12. Can a linkage be made between digital parcel mapping and tax roll/assessment databases? (e.g., to support thematic mapping of attributes such as assessed value, assessment class, and ownership)
- ☐ Yes, such a linkage is simple  
☒ Yes, but on a project-by-project basis with some additional manipulation of digital parcel mapping and/or the tax roll/assessment database  
☐ No

13. Comments?

The City of Milwaukee maintains its own digital parcel mapping capability outside of the system developed in the balance of the County. The City's digital parcel maps are being integrated into the County system in a transition effort that will require about five years to complete.

Milwaukee county

## Section 10: Zoning

1. Does your county have zoning

☒ Yes  
☐ No

If no, skip the rest of this section.

2. Has your county created or acquired digital mapping of zoning boundaries?

☒ Yes  
☐ No



If no, does your county intend to create or acquire digital mapping of zoning boundaries?

☐ Yes

☐ No

If no, skip the rest of this section.

3. Does your county have separate series of maps depicting the following zoning elements in digital form?

Please check all that apply and include the percent complete for the entire county.

Zoning Element	Percent Complete	Plan to complete?	Plan to maintain or update?
Shoreland zones	<input type="text" value=""/>	<input type="text" value="No"/>	<input type="text" value="No"/>
Wetland zones	<input type="text" value="100"/>	<input type="text" value="N/A"/>	<input type="text" value="Yes"/>
Floodplain zones	<input type="text" value="80"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>
General ordinance zones (residential, commercial, industrial, agricultural, etc.)	<input type="text" value=""/>	<input type="text" value="No"/>	<input type="text" value="No"/>
Environmental corridors	<input type="text" value="100"/>	<input type="text" value="N/A"/>	<input type="text" value="Yes"/>
Urban Service Areas	<input type="text" value=""/>	<input type="text" value="No"/>	<input type="text" value="No"/>
Steep Slopes	<input type="text" value=""/>	<input type="text" value="No"/>	<input type="text" value="No"/>
Other, please specify			

- ## 6. Comments?

3/28/2003



Agriculture, Natural Resources Conservation Service (NRCS). (NRCS was formerly known as the Soil Conservation Service). The Soil Survey Geographic Database (SSURGO) is the most detailed level of digital soil mapping done by NRCS. SSURGO digitizing duplicates the original soil survey maps. SSURGO is designed for use by landowners, townships, and county natural resource planning and management.

1. Has your county acquired digital soils data from the U.S. Department of Agriculture, Natural Resources Conservation Service?

☐ Yes  
☐ No Skip to Question #3

2. If yes, has your county modified or refined NRCS digital soils data?

☐ Yes  
☐ No

If yes, please briefly describe the modifications or refinements made.

3. Has your county acquired or developed digital soils data from another source?  
*(Note: This refers to the source of the digital data only; the original source material -- soil surveys -- may still be from NRCS)*

☐ Yes  
☐ No

If yes, please describe the source for digital soils other than NRCS.

Less than half of Milwaukee County is covered by an operational soil survey. Those areas covered utilize the digital soil survey created by the Southeastern Wisconsin Regional Planning Commission from SCS source material.

If yes, is it in a format consistent with the counties primary coordinate system?.

- ☒ Yes  
☐ No

#### 4. Comments?

Milwaukee county

## Section 12: Wetlands

The primary source of digital wetlands mapping in Wisconsin is the Wisconsin Wetlands Inventory (WWI). The custodian and sole distributor of digital WWI data is the Wisconsin Department of Natural Resources, Bureau of Fisheries Management and Habitat Restoration. WWI maps are the regulatory base for all state wetland protection programs.

1. Has your county acquired digital Wisconsin Wetlands Inventory data from the Wisconsin Department of Natural Resources?

- ☐ Yes  
☐ No *Skip to Question #4*

If no, why not.

Milwaukee County utilizes the digital wetlands data compiled by the Southeastern Wisconsin Regional Planning Commission. These digital files were developed cooperatively with the Wisconsin DNR.

**2. If yes, has your county modified or refined digital Wisconsin Wetlands Inventory data?**

- ☐ Yes  
☐ No

If yes, please briefly describe the modifications or refinements made.

**3. Has your county acquired or developed digital wetlands data from another source?**

- ☐ Yes  
☐ No

If yes, please describe the source for digital wetlands other than WWI.



The Southeastern Wisconsin Regional Planning Commission.

4. Comments?

Milwaukee county

## Section 13: Administrative Boundaries

1. Does your county have digital mapping of administrative boundaries?

- ☒ Yes  
☐ No, but our county plans to.  
☐ No, and there are no plans to.

2. Which of the following administrative boundaries are locally produced (excluding TIGER)?

Please check all that apply

Administrative Boundary	Source	Percent	Plan to Maintain	Consistent with
-------------------------	--------	---------	------------------	-----------------

			Complete	Complete?	or update?	Parcel Mapping?
County Boundaries	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Minor civil divisions (cities, villages, and towns)	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sewerage districts	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water supply districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric utility districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas utility districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phone utility districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cable television utility districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Legislative districts	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voting ward boundaries	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tax increment financing districts	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
School districts	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lake districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Census geographies (tracts, block groups, blocks)	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Native American reservations	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Agency administrative districts	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Zip codes	<input checked="" type="checkbox"/>	Fed (TIGER)	<input type="checkbox"/>	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public lands	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
911 / E911 Service areas	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify:	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please Specify:	<input type="checkbox"/>	--Source--	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 3. Comments?

All district boundaries affected by the recent legislative redistricting process were revised during 2002 as the new boundary information became available.

Milwaukee county

## Section 14: Street Network System

### 1. What type of street network mapping does the county have?

- ☒ Digital  
☐ Hard Copy Only



☐ None

2. If the county has digital and/or hardcopy street network mapping, how much of the county is complete?

Digital

Hard Copy

3. If the county does not currently have street network map in digital form, do you intend to create one?

☒ Yes

☐ No

☐ N/A

### Format of Street Network Mapping

4. Which of the following features do you include as part of your street network system?

Please check all that apply

Digital	Hardcopy	Features
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Street centerlines
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Street edge of pavement
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Street Rights-of-Way
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Bridges
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Address ranges

<input type="checkbox"/>	<input type="checkbox"/>	Other, Please Specify: <input type="text"/>
--------------------------	--------------------------	---

5. How current is your street network data

Digital	<input type="checkbox"/> 1995
Hard Copy	<input type="checkbox"/> 1995

6. What are the methods used for compiling street network data?

Please check all that apply

Digital	Hardcopy	Compilation Method
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Compiled for the county using photogrammetric methods.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Digitized by or for the county from existing paper or mylar source.
<input type="checkbox"/>	<input type="checkbox"/>	Digitized by or for the county from orthophotos or aerial photography.
<input type="checkbox"/>	<input type="checkbox"/>	Modified from TIGER/Line files.
<input type="checkbox"/>	<input type="checkbox"/>	Created using coordinate geometry (COGO) software from an existing source.
<input type="checkbox"/>	<input type="checkbox"/>	Acquired from vendor (e.g. GDT, TeleAtlas, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	Other, Please Specify: <input type="text"/>

Street Addressing

7. Does the digital street network system for the county include information on individual street addresses?

☒ Yes

- ☐ No  
☐ Planned

8. Does the digital street network system for the county include information on street address ranges?

- ☒ Yes  
☐ No  
☐ Planned

9. Is address information linked to digital mapping of the street centerline for the county?

- ☒ Yes  
☐ No  
☐ Planned

10. Is address information linked to digital mapping of buildings for the county?

- ☒ Yes  
☐ No  
☐ Planned

11. Does your county follow United States Postal Service addressing standards?

- ☒ Yes  
☐ No

12. What type of addressing system is generally used by your county?

- ☒ Urban Addressing

Numbers / Unit



/   
 eg. 100 / Block  
 1000 / Mile  
☒ Other, *Please Specify*

13. Comments?

Milwaukee county

## Section 15: Land Use Mapping

1. What type of land use mapping does the county have?

Existing Land Use	Future Land Use
<input checked="" type="radio"/> Digital	<input checked="" type="radio"/> Digital
<input type="radio"/> Hard Copy Only	<input type="radio"/> Hard Copy Only
<input type="radio"/> None	<input type="radio"/> None

2. If the county has digital and/or hard copy land use mapping, how much of the county is complete?

Existing Land Use	Future Land Use
Digital <input type="text"/> 100 %	Digital <input type="text"/> 100 %

Hard Copy	100 %	Hard Copy	100 %
-----------	-------	-----------	-------

3. If the county has digital and/or hard copy land use mapping, what time period does that mapping represent?

Existing Land Use	Future Land Use
Digital	Digital
1995 yr	2020 yr
Hard Copy	Hard Copy
1995 yr	2020 yr

4. If the county does not currently have land use mapping in digital form, do you intend to create it?

Existing Land Use	Future Land Use
<input type="radio"/> Yes	<input type="radio"/> Yes
<input type="radio"/> No	<input type="radio"/> No
<input type="radio"/> N/A	<input type="radio"/> N/A

5. What classification system do you use for land use mapping?

- ☐ Wisconsin Department of Revenue Land Use Classification System
- ☐ Land Use Based Classification Standards (American Planning Association)
- ☐ Standard Land Use Coding Manual (Federal Highway Administration and Department of Housing, 1965)
- ☐ Modified SLUCM
- ☐ Standard Industrial Code / North American Industrial Classification System (SIC/NAICS)

- ☐ Modified SIC/NAICS
  - ☐ USGS Land Use and Land Cover Classification System (Anderson et al., 1976)
  - ☐ SEWRPC Land Use Codes
  - ☐ County-created system
  - ☐ Other
- Other, Please specify:

**6. What is the source for digital land use mapping in the county?**

Please check all that apply

- ☒ Interpretation of aerial photography
- ☒ Field surveys
- ☐ Linkage of tax assessment class to digital parcel mapping
- ☐ Other, Please specify:

**7. Comments?**

Digital land use mapping for 2000 is currently under preparation utilizing digital orthophotography obtained during 2000.

Milwaukee county

**Section 16: Natural Resources**

**1. Does your county have digital mapping of natural resources?**



- ☒ Yes  
☐ No, but my county intends to. *Skip to Next Section*  
☐ No, and there are no plans to. *Skip to Next Section*

2. Which of the following natural resources are mapped in digital format?

Please check all that apply

Natural Resource	Source	Percent Complete	Plan to Complete?	Plan to Maintain or update?
Land cover	--Source--	%	<input type="checkbox"/>	<input type="checkbox"/>
Geology	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Watersheds	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrogeology	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Forests	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrography	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Endangered resources	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Impacts on the environment	--Source--	%	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify:	--Source--	%	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify:	--Source--	%	<input type="checkbox"/>	<input type="checkbox"/>

## 3. Comments?

Milwaukee county

## Section 17: Infrastructure and Facilities Management

## 1. Does your county have digital mapping of infrastructure systems?

- ☒ Yes  
☐ No, but my county intends to. *Skip to Next Section*  
☐ No, and there are no plans to. *Skip to Next Section*

Please check all that apply

Facility	Source	Percent Complete	Plan to Complete?	Plan to Maintain or update?
Railroads	--Source--	%		
Harbors	--Source--	%		
Transit systems	Local	100 %		
Airports	Local	100 %		

Recreational trails	<input checked="" type="checkbox"/>	--Source--	<input type="text" value=""/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural gas network	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Electric network	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sewer network	<input checked="" type="checkbox"/>	Local	50 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water network	<input checked="" type="checkbox"/>	Local	50 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Phone network	<input checked="" type="checkbox"/>	Local	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Telecommunications network	<input type="checkbox"/>	--Source--	<input type="text" value=""/>	<input type="checkbox"/>	<input type="checkbox"/>
Government facilities	<input checked="" type="checkbox"/>	Local	25 %	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other, please specify:	<input type="checkbox"/>	--Source--	<input type="text" value=""/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify:	<input type="checkbox"/>	--Source--	<input type="text" value=""/>	<input type="checkbox"/>	<input type="checkbox"/>

## 2. Comments?

Digital infrastructure systems for natural gas distribution, electric distribution, and telephone services have been developed by the private utilities concerned. Digital infrastructure systems for water distribution, sewerage, and government facilities are being developed by

Milwaukee county



## Section 18: Completion Time for Foundational Elements

1. Assuming the WLIB policy of completing as many of the foundational elements by the sunset date of August 31, 2003, when do you contemplate completing the following spatial data elements in digital form?

Activity	Expected Completion
Densification of horizontal control from (HARN)	Not planned
Densification of vertical control network	Already Complete
Remonumentation of PLSS section corners	Already Complete
Coordinate values on PLSS section corners	Already Complete
Digital base map in vector format	Already Complete
Image bases (digital orthophotography)	Already Complete
Vector elevation data (contours/spot elevations)	Already Complete
Raster elevation data (DEM)	Not planned
Parcels	Already Complete
Zoning	Complete after 2003
Soils	Already Complete
Wetlands	Complete after 2003
Administrative boundaries	Already Complete
Street centerlines	Already Complete
Street addresses	Already Complete

Land use mapping	Already Complete
Natural resources	Complete after 2003
Infrastructure and facilities management	Complete after 2003

## 2. Comments?

Milwaukee county

## Section 19: Data Integration

1. Has the county acquired and/or combined digital spatial data from municipalities within the county to study a cross-jurisdictional issue?

- ☒ Yes  
☐ No, but this is technically feasible  
☐ No, data are not available or are incompatible

If yes, please briefly describe the most significant data integration project within the county, including data themes shared, successes, problems (technical and institutional), and lessons learned.

The county has implemented a temporary parcel layer with parcel outlines and ID's, a rights-of-way layer and a storm sewer layer. The biggest issue was creating a consistent format between the different software platforms (DGN, SHP, DWG) involved.

2. Has the county acquired and/or combined digital spatial data with adjacent counties to study a cross-jurisdictional issue?

- ☐ Yes
- ☐ No, but this is technically feasible
- ☐ No, data are not available or are incompatible

3. Comments?

Milwaukee county

## Section 20: Institutional Arrangements

1. Does your county have formal (written) or informal arrangements with other entities?



- ☒ Yes  
☐ No

If no, please skip to next section.

2. Please list the institutional arrangements that exist for your county. Indicate which agencies participate and if the nature of the arrangement is formal (written) or informal (verbal) or are to be negotiated in the future.

Multi-Departmental/Single Governmental Unit	Nature of Arrangement
Cartographer	--Type of Arrangement--
Conservationist	--Type of Arrangement--
Data Processing Department	Formal
Emergency Government	Informal
Forest and Park Administration	Informal
Land Information Office	Formal
Planning and Zoning	--Type of Arrangement--
Real Property Lister	Informal
Register of Deeds	Formal
Sheriff	Informal
Solid Waste Department	--Type of Arrangement--
Surveyor	Formal

Transportation	Formal
Treasurer	-- Type of Arrangement--
Zoning	-- Type of Arrangement--
Other (Please specify)	-- Type of Arrangement--

3. Indicate the number of formal (written) or informal (verbal) arrangements your county has with each of the following types of entities.

	Formal	Informal
Municipalities within the county	19	0
Municipalities outside the county	0	0
Other counties	6	0
Regional agencies	2	0
State agencies	5	0
Federal agencies	0	0
Private sector organizations	65	0

4. Copy and paste a sample arrangement into the text box below, if applicable.

5. Comments?

Milwaukee county

## Section 21: Communications, Education, and Training

1. Rate the following activities based on the amount of activity. Communications is the mechanism to disseminate information. Education and training is based on learning concepts and "hands-on" experience. Please rank the amount of activity from 1-5, where 5 indicates a high degree of activity.

Communications

Education and training

2. Does your county support any of the following activities?

☐ Publishes a land information newsletter

☐ Yes

☐ No



o Provides financial support to attend land information conferences

☒ Yes  
☐ No

o Sponsors land information conferences

☒ Yes  
☐ No

o Sponsors land information training seminars for staff members

☒ Yes  
☐ No

o Sponsors land information training seminars and short courses for professionals outside the county

☒ Yes  
☐ No

o Provides support for staff to obtain degrees in related fields

☒ Yes  
☐ No

3. Comments?



Milwaukee county

## Section 22: Public Access

1. Does your county use any of the following means to provide public access to digital spatial data?

Please check all that apply

☐ Public access terminal

☐ Electronic kiosk

☒ Compact disc or other media

☐ Internet web site --- please specify URL

☐ Dial-up or FTP access please --- please specify IP Address

☐ Other --- please specify

2. If your county has a web site for public access, what functions are available?

☐ View spatial data

☐ View tabular data

☐ View static maps

☐ View static tables

☐ Make maps

☐ Query tabular data

☐ View GIS product catalog

☐ View Metadata

☐ Download data

☐ Order data

- ☐ View information policies
- ☐ Track land information events
- ☐ Other, --- please specify:

3. Does your county have plans to provide access to digital spatial data through the Wisconsin Land Information Clearinghouse (WISCLINC)?

- ☐ Yes
- ☐ No, but we plan to in the future
- ☐ No, we have no plans to because:
- ☐ No local discussion. No policy established.

4. Does your county have plans to provide access to metadata about digital spatial data through the Wisconsin Land Information Clearinghouse (WISCLINC)?

- ☐ Yes
- ☐ No, but we plan to in the future
- ☐ No, we have no plans to because:

5. Has your county developed a formal information sharing policy that addresses issues such as pricing, copyright, privacy, liability, data sharing, etc.?

- ☐ Yes
- ☐ No, but we plan to in the future
- ☐ No, we have no plans to do so

6. Does your county utilize any of the following when providing digital spatial data to other government agencies?



Please check all that apply

- ☒ Copyright
- ☒ License agreement
- ☒ Restrictions on dissemination of data
- ☒ Charge for the cost of reproduction
- ☐ Charge in addition to the cost of reproduction
- ☐ Other restrictions -- please specify

#### 7. Comments?

Milwaukee county

### Section 23: Modernization Stages

Development of an automated land information system for a variety of users can be categorized into six different stages based upon the kinds of activities for which that system is being used. These six stages are listed in the question below. [Note: This question was originally asked as part of a 1996 survey in Wisconsin on evaluating the diffusion of Multipurpose Land Information Systems in local governments.]

1. Which of the following stages most accurately describes the current stage of land information system development by your local government organization or the

one with which you work most closely?

Please check all that apply

- ☐ **no modernization activities**-- activities are limited to manual processes and there are currently no planned modernization efforts;
- ☐ **system initiation stage** -- activities are directed toward establishing the prerequisites for such a system (e.g., database design, needs assessment, procurement);
- ☒ **database development stage** --building databases to support land information management (e.g., geographic frameworks, resource boundaries, parcel map construction);
- ☒ **recordkeeping stage** --existing data are used in routine queries and selective information retrieval (e.g., tax assessment, number of new building permits);
- ☐ **analysis stage** --existing data enable the performing of complex queries (e.g., 911 emergency routing, land-fill siting);
- ☐ **democratization stage** --existing data enable agency decision-makers and the public to conduct spatial analyses (e.g., alternative scenarios for future land and resource use or evaluation of social services).

2. Comments?

Milwaukee county

## Section 24: WLIP & Survey Questions

1. What do you consider the most significant benefit to your county that has resulted, thus far, from the Wisconsin Land Information Program?

The creation of a dedicated funding mechanism for land records modernization activities.

2. In the last year, how would you rate the performance of the Wisconsin Land Information Board?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

Comments:

3. What are your impressions of the survey?

- ☐ The survey was too short and did not cover enough detail about county LIS activities.
- ☐ The survey was reasonable in length and covered county LIS activities in adequate detail.
- ☐ The survey was too long and covered county LIS activities in too much detail.



4. How many people were involved in completion of this survey?

5

People

(Please make sure that all persons who completed the survey are listed in Section 1, Question 10, thanks)

5. What was the total staff time devoted to completion of this survey?

16

Hours

6. Describe any specific benefits deriving from the county's land records modernization activities. Your responses will help demonstrate the effectiveness of the WLIP.

The program has allowed Milwaukee County to develop a uniform set of digital mapping layers across the entire county. The availability of these materials have permitted a number of County cities and villages to speed up their GIS implementation activities by making it

7. Estimate the annual investment of county fiscal resources above & beyond that amount directly attributable to WLIP Grants and retained fees.

On the order of \$300,000 to \$350,000 on an annual average basis.

Any additional comments on this section:

## Milwaukee County

### Section 25: Retained Fees

#### Retained Fees

The County is required to use \$1 of each \$5 fee retained to develop and maintain a computerized indexing of the county's land information records relating to housing, including the housing element of the county's land use plan under s. 66.1001(2)(b), Wis. Stats., in a manner that would allow for greater public access via the Internet. There were four categories of eligible activities specified in the guidelines:

- Property Assessment and Tax Information accessible via the Internet;
- Current Housing Supply and Forecasted Demand of Residential, Commercial, Industrial and other Lands;
- Affordable and Special Needs Housing Information;
- Housing Sales Information.

Eligible Expenditures of this \$1 retained fees to achieve the above would include:

- Computer Hardware;
- Computer Web-Enabled Software;

- Vendor Contracting;
- Metadata Development.

1. The total retained fees represented by the collection of the additional \$1 for the 2002 calendar year:?

230597

2. Indicate total retained fees of the additional \$1 for the 2002 calendar year which have been expended on these activities?

13090

3. Please briefly describe the activities that have led to the accessibility of property assessment, tax housing, and/ or sales information via the internet. This space accommodates 4- 5 Sentences.

During 2002, Milwaukee County purchased a scanner for oversize documents such as plats of survey that are filed in the Register of Deeds Office. This will enable the County to make images of these documents available over the Internet as Internet capability is expanded in the

4. Please list all URLs (web site addresses) for those internet sites that demonstrate activity in the area of the providing property assessment, tax, housing and / or sales data accessible via the internet for your country.








Under development.

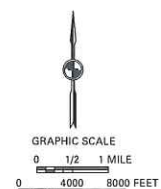
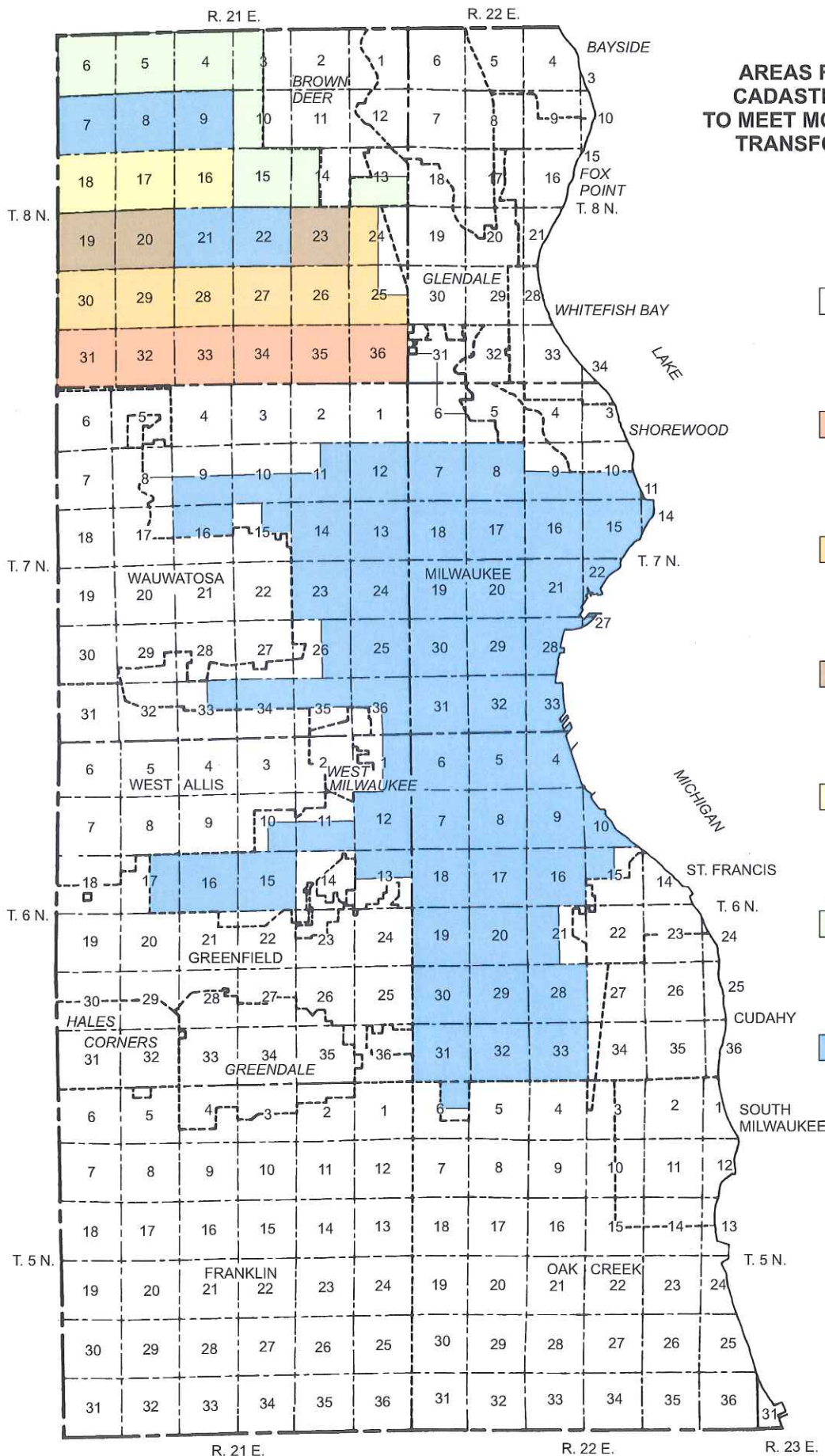


# Exhibit A

## AREAS FOR WHICH CITY OF MILWAUKEE CADASTRAL MAPS ARE TO BE ADJUSTED TO MEET MCAMLIS STANDARDS BY COMPUTER TRANSFORMATION AND RECOMPILATION

### LEGEND

-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS TO BE ADJUSTED BY COMPUTER TRANSFORMATION TO MEET MCAMLIS STANDARDS, PROJECT AREA 6 (26)
-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS TO BE ADJUSTED BY COMPUTER TRANSFORMATION TO MEET MCAMLIS STANDARDS, PROJECT AREA 7 (24)
-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS TO BE ADJUSTED BY COMPUTER TRANSFORMATION TO MEET MCAMLIS STANDARDS, PROJECT AREA 8 (25)
-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS TO BE ADJUSTED BY COMPUTER TRANSFORMATION TO MEET MCAMLIS STANDARDS, PROJECT AREA 9A (12)
-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS TO BE ADJUSTED BY COMPUTER TRANSFORMATION TO MEET MCAMLIS STANDARDS, PROJECT AREA 9B (12)
-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS TO BE ADJUSTED BY COMPUTER TRANSFORMATION TO MEET MCAMLIS STANDARDS, PROJECT AREA 10 (24)
-  CITY OF MILWAUKEE U. S. PUBLIC LAND SURVEY ONE-QUARTER SECTION CADASTRAL MAPS MEETING MCAMLIS STANDARDS. COMPLETED PROJECTS (229)



March 25, 2003

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## EXECUTED LICENSE AGREEMENTS

Number of Executed Agreements		Licensee	Effective Date
Since 1995	For 2003		
		<b>2003</b>	
90.	1.	North Shore Fire Equipment	1/13/03
91.	2	Planning & Design Institute, Inc.	2/6/03
92.	3.	Nancy M. Aten	2/12/03

#58437 v1 - MCAMLIS-EXECUTED LIC. AGREEMNTS

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 Per 14-: 2/28/2003	TOTAL
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	
Beginning Period Reserve-January 1	0	283,340	495,922	573,049	295,130	1,060,413	1,310,646	1,274,859	1,082,318	1,125,752	1,108,688	564,460	183,752	-141,197
Mid-Year Reserve Changes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Current Period Reserve	0	283,340	495,922	573,049	295,130	1,060,413	1,310,646	1,274,859	1,082,318	1,125,752	1,108,688	564,460	183,752	-141,197
Recording Fees (\$4.00 Portion)	101,886	324,983	612,592	676,093	647,355	503,342	574,328	644,508	769,820	773,078	609,683	743,977	918,012	7,991,929
Recording Fees (\$1.00 Portion)	0	0	0	0	0	0	0	0	0	0	0	0	0	326,720
State Grants	0	0	0	150,000	200,000	165,000	138,500	55,300	139,226	152,270	103,895	325,997	197,979	1,628,167
1 Private Utility Contributions	312,000	312,000	312,000	312,000	312,000	0	0	0	0	0	0	0	0	1,560,000
2 MWSD Contribution	0	0	0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	170,000	0	0	520,000
Annual Revenue	413,886	636,983	924,592	1,188,093	1,209,355	718,342	762,828	749,808	959,046	975,348	883,578	1,142,942	1,346,588	12,026,816
TOTAL FUNDS AVAILABLE	413,886	920,323	1,420,514	1,761,142	1,504,485	1,778,755	2,073,474	2,024,667	2,041,364	2,101,100	1,992,266	1,707,402	1,530,340	11,885,619
Additional Encumbrance	100,000	22,075	534,849	272,943	-900,864	112,067	308,902	367,776	361,580	386,754	586,545	737,559	577,619	4,105,424
Legal Fees	0	350	600	0	0	0	0	0	0	0	0	0	0	950
Systems Consulting (UGC)	0	128,638	0	0	0	0	0	0	0	0	0	0	0	128,638
USPLS Remuneration	0	41,260	0	0	0	0	0	0	0	0	0	0	0	41,260
Horizontal/Vertical Control Surveys	0	144,443	0	0	0	0	0	0	0	0	0	0	0	144,443
Aerial Photos/Mapping	21,555	17,925	292,060	1,178,794	1,340,370	356,953	490,821	576,268	556,108	608,450	842,594	787,620	1,095,708	8,165,225
Project Facilitator	8,991	73,567	21,650	14,995	0	0	0	0	0	0	0	0	0	119,203
Conference	0	59	1,046	319	0	0	528	0	0	0	0	0	0	1,953
Project Conversion Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEWRPC Staff and Training	0	0	0	0	6,291	797	0	0	0	0	0	0	0	0
Computer Hardware/Software	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROD Materials Copied	0	0	0	0	0	0	26	0	0	0	0	0	0	26
Computer Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Computer/Office Supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent and Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Database Maintenance and Updates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contractual Crosscharges	40	554	13	-1,040	-1,724	-1,708	-1,664	-1,700	-2,116	-2,792	-1,676	-1,529	-2,232	1,399
Charges Paid By Other Departments	0	-4,470	-2,752	0	0	0	0	0	40	0	0	0	-175	-25,578
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Annual Expenditures	30,586	402,326	312,616	1,193,069	1,344,936	356,042	489,713	574,573	554,032	605,658	841,261	786,091	1,093,918	8,584,647
TOTAL EXPS / ENCUMBRANCES	130,586	424,401	847,466	1,466,012	444,072	468,109	798,615	942,349	915,612	992,412	1,427,806	1,523,650	1,671,537	12,690,071
NET AVAIL FUNDS (END RESERVE)	283,300	495,922	573,049	295,130	1,060,413	1,310,646	1,274,859	1,082,318	1,125,752	1,108,688	564,460	183,752	-141,197	-804,452

1. 1994 was the final year for this revenue source.

2. \$50,000 will be paid each year through 2002, and \$20,000 in 2003.

V



# MILWAUKEE COUNTY AUTOMATED MAPPING AND LAND INFORMATION SYSTEM

c/o Southeastern Wisconsin Regional Planning Commission  
W239 N1812 Rockwood Drive -- PO Box 1607 -- Waukesha, Wisconsin 53187-1607

Telephone (262) 547-6721  
Fax (262) 547-1103

## MEMORANDUM

TO: MCAMLIS Steering Committee  
FROM: MCAMLIS Project Staff  
DATE: March 20, 2003  
SUBJECT: REVISED SURVEY CONTROL INFORMATION

In accordance with the commitment made at the January 28, 2003, Steering Committee meeting, this Memorandum sets forth the procedure followed by project management staff for incorporation of revised survey control information into MCAMLIS survey control records and MCAMLIS digital and hardcopy topographic and cadastral maps.

Revised survey control information is first incorporated into MCAMLIS survey control records. These records consist of dossier sheets; control survey summary diagrams, both of which are "paper" records; and a digital "sequential access" file.

MCAMLIS digital and hardcopy maps are then revised by incorporation of the revised survey control information. Coordinate values and elevations are replaced with revised coordinates and elevations. The grid and ground distances and grid bearings are revised as necessary, and if the combined X and Y movement of the control point is sufficient, the section and quarter-section lines adjoining adjacent U.S. Public Land Survey monuments are also repositioned.

Generally, the symbols marking the positions of the monuments will not be physically moved on the maps and digital records unless their distance exceeds 2.5 inches at the plotted map scale of one inch equals 200 feet.

In spite of these procedures for incorporating revised survey control information, occasionally some of this information will not be incorporated as intended. These residual errors may be found by users of the products and, if brought to the attention of the SEWRPC staff, are corrected as may be necessary.

\* \* \*

**Greg High**

01/07/03 09:38 AM

To: Gary Drent/DPW/Milwaukee County@milwco  
cc:  
Subject: Land Information Officer

----- Forwarded by Greg High/DPW/Milwaukee County on 01/07/03 09:42 AM -----

**Greg High**

11/21/02 12:26 PM

To: Thomas Kenney/DPW/Milwaukee County@milwco  
cc: Carolyn Pucci-Schiel/DPW/Milwaukee County@milwco  
Subject: Land Information Officer

Tom:

Could we talk about this at your convenience?? I am not looking for more stuff to do. However, Mr. Niemczyk indicates he is the only Register of Deeds attending the Land Information Officer meetings. Other countys send their Planning and Zoning Director or other related positions.

Thanks

----- Forwarded by Greg High/DPW/Milwaukee County on 11/21/02 12:29 PM -----

**Gary Drent**

11/21/02 09:47 AM

To: Greg High/DPW/Milwaukee County@milwco  
cc:  
Subject: Land Information Officer

As you know with the changing of the guard at the Register of Deeds, the Land Information Officer for the county will need to be reappointed. I suggest you speak to Tom Kenney about having you designated as the LIO. I say that for a number of reasons.

You have the most experience of any county person of MCAMLIS, knowing the history of the organization. Your working relationship with committee members over the years has been excellent. It would assist in the transition of A/E taking the MCAMLIS duties next year. I believe the county would be served better having you rather than just appointing the new ROD because that's the way it's always been.

Please consider this direction. Thanks.